The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1502.—Vol. XXXIV. LONDON, SATURDAY, JUNE 4, 1864. (WITH SUPPLEMENT) {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.

Mr. Crofts transacts business, in the way of PURCHASE or SALE, in every description of stocks, but particularly in BRITISH MINES, in no case departing from the position of a broker, at net prices. All orders meet with the utmost punctuality and zeal, and advice given as to the nature and eligibility of INVESTMENTS, when required.

Mr. Crofts, from a lengthened experience of the Mining Market, is competent to advise as to the merits of any mine, and the desirability of buying, selling, or exchanging shares. To the latter department he devotes particular attention.

SHARES RECOMMENDED to be bought:—Central Miners, Cefn Cilcen, Pentre Lygan, Bedol-Aur, West Chiverton, North, and Wheal Chiverton, Brynford Hall, East Grenville, Great Laxey, Vor, Ludcott.

BUSINESS in East Laxey.

*** SPECIAL—FOR SALE:—50 Rosewarne Consols (offer wanted).

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

James Lane has FOR SALE at nett prices:—5 Basset and Gryils, £12; 10 Boscawen, £3¼; 50 Crebor, 47s. 6d.; 20 Drake Walls, 32s. 6d.; 50 East Jane, 42s.; 10 East Carn Brea; 50 East Providence, £4; 20 Great Wheal Busy, £4; 10 East Lovell, £20¾; 5 Grambler and St. Aubyn; 100 Hearle, 4s.; 20 Hallenbeagle, £4; 5 Great Fortune, £15¼; 5 Mary Ann; 50 Molland, 2s. 6d.; 10 Marke Valley, £5; 50 New Wh. Martha, £11¼; 35 New Birch Tor and Vitifer, £3¼; 50 New Wheal Rose, 15s. 6d.; 10 North Treskerby, £3½; 10 Prosper and Michell, £20; 25 New South Caradon, 11s.; 20 St. Day United, 32s. 6d.; 20 Sithney and Carnmeal, £8; 10 Treworrils, £3; 3 Trelawny; 10 Kitty (St. Agnes), £6¼; 5 Wentworth Consols, £16; 20 Wheal Grenville, £9.

SHAREHOLDERS IN MINES AND CAPITALISTS will do well to READ PETER WATSON'S WEEKLY MINING CIRCULAR of Friday, 3d of June (yesterday), No. 324, Vol. VIII. Price 6d. each copy (post paid.) Forwarded on application. In this Circular there are three valuable mines mentioned, which are certain to pay good interest, and the price of shares greatly and quickly advanced in market value.—79, Old Broad-street.

PETER WATSON'S WEEKLY MINING CIRCULAR AND SHARE LIST, published every Friday, price 6d. each copy, forwarded on application. This Circular contains weekly important information with respect to all the principal dividend and progressive mines in Devon and Cornwall.
79, Old Broad-street, London, E.C.

STOCK AND SHAREDEALER.—Mr. PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 79, OLD BROAD-STREET, LONDON, E.C.

TELEGRAPHIC MESSAGES to BUY or SELL Railway, Bank, Mine, and other Shares and Stocks, punctually attended to on commission, or at nett prices for cash, or for fortnightly settlements, with advice as to purchases or sales.

Nineteen years' experience.

(Two in Cornwall and Seventeen in London.)

Bankers: Union Bank of London, and the Alliance Bank of London and Liverpool.

Every information can be obtained on personal application or by letter, as to purchase and sales of mine and other shares, and the best investment for capital.

From the close proximity of his Offices to the Stock Exchange, as well as the Mining Exchange, Peter Watson is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.—June 3, 1864.

EAST WHEAL LOVEL.—When the shares in this mine were selling at a third of the present price, I called particular attention to this property, and I still recommend a purchase of the shares. The agent in his report this week, I understand, values the several points together at 470*l.* to 510*l.* per fm.
79, Old Broad-street, London, E.C., May 27.

MR. LELEAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, LONDON, E.C.

Shares bought and sold on the usual commission. Telegraphic messages promply attended to. Mines inspected, and reliable information given. Established 15 years.

Mr. Lelean strongly recommends the purchase of Great South Chiverton at present prices. See report of the agent in another column. Also, East Treskerby, North Miners, and Great Laxey.—June 3, 1864.

JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C.

J. Hume's Circular for May now ready. Price 6d.; subscription, 5s. per annum.

East Lovell.—Business done for cash or account in these shares.

Bankers: London Joint-Stock Bank.

WILLIAM ALLISON, STOCK, SHARE, AND MINING BROKER, 29, AUSTINFRIARS, LONDON, E.C.
Orders to buy or sell, accompanied by references, punctually attended to.

RICHARD CLIFT, MINE SHAREDEALER, late of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all letters are to be addressed.

GEORGE RICE, SHAREBROKER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, (21 years' experience), has SPECIAL BUSINESS, as BUYER or SELLER, for cash or account, in the following mines:—

	Closing quotations.		Closing quotations.
Chiverton	£11 –11¼	Marke Valley	£ 4½– 4¾
Clifford Amalgamated	33½–34	New Rosewarne	10 –10½
East Lovell	19 –19¼	Prosper United	5½– 5¾
East Rosewarne	2¾–3	Nangles	30½–31
East Caradon	27¾–28¼	Wheal Crebor	45s.–46s. 6d.
East Russell	3⅞– 4⅛	West Chiverton	70 –75
East Carn Brea	8⅜– 8½	Wheal Grenville (call paid)	8¼– 8½
East Grenville	5⅛– 5⅜	Wheal Seton	225–227½
Great Wheal Vor	33½–34	Wheal Hope	3 – 3½

An OFFER WANTED for 50 Torbay Hematite Iron Company (Limited), £6⅜ paid; 50 Roborough Tin and Copper Mining Company (Limited), £3 fully paid.

Money advanced on mining shares.

June 3, 1864. Bankers: Bank of London.

MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.

FOR SALE:—

100 Bedol-Aur.	5 East Caradon, £28⅞.	20 Hallenbeagle, £4¾.
20 Bryntail.	10 East Carn Brea, £8⅛.	2 Nangles, £31.
6 Bryn Gwiog, £30.	20 East Rosewarne, £3⅛.	20 North Chiverton.
80 Carn Camborne, 20s. 6d.	5 Gonamena, £3⅞.	25 North Shepherd.
35 Chiverton, £11⅛.	50 Gt. South Chiverton.	20 No. Treskerby, £3 1 3
2 Clifford Amal., £34.	10 Great Fortune, £15.	50 Wheal Crebor, 46s. 6d.
5 Crane, £8.	10 Great Vor, £34¼.	50 East Wheal Vor, 25s.
10 Great Laxey, £14⅛.	40 East Bottle Hill, 2s.	(£2 10s. paid).

East Lovell continues to progress most satisfactorily. The market operations have not tended to have the effect desired by the "bears." Shares are firm at £20, £20½.

Mr. Sandy can recommend two or three mines at present prices, which will return a considerable profit on the outlay. Applications must be made at once.

A correct daily price list will be forwarded on application.

Business transacted at the closest market prices.

MR. J. P. ENDEAN, STOCK AND SHAREBROKER,
1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.

Having had 25 years' experience in the mining districts of Devon and Cornwall, and three in the London market, with daily information of important changes from qualified agents, also the most authentic reports relating to other investments, he is in a position to afford the earliest information to his clients, and to direct capitalists whether to buy or sell in mines, railways, or other securities.

Investors should apply to him for reliable information relative to the Chiverton Mines, also the Camborne and Illogan districts.

A carefully selected list of sound progressive and dividend shares (certain to give a large percentage immediately) forwarded on receipt of 5s. in stamps.

Orders and telegrams receive immediate attention.

MR. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 17 years), has FOR SALE at nett prices:—20 Wheal Grenville, £8½; 25 East Grenville; 3 Stray Park; 15 North Crofty, £4¼; 30 East Treskerby, £2¾; 20 Sithney Metal; 50 Nova Scotia Gold, £2⅞; 100 Gawton, 20s. 6d.; 50 Okel Tor, £4; 150 Anglo-Brazilian, 5s. 6d.; 1 West Damsel; 50 West Metal; 100 Don Pedro, 11s. 9d.; 75 Illogan; 100 Wheal Hartley, 14s. 6d.; 30 East Russell; 100 Vale of Towy, 5s. 6d.; 10 Wentworth Consols, £15½; 120 Redmoor, 4s. 6d.; 100 Prince of Wales, 7s. 9d.; 75 West Wheal Vor; 60 Wheal Unity, 7s.; 20 North Frances, 22s. 6d.; 2 South Frances, £44; 50 Great East Lovell; 1 Seton, £227½; 20 East Carn Brea, £8⅝; 50 Crebor, £2 8s. 9d.; 10 Mineral Bottom; 5 Nangles, £30¼; 25 Gonamena, £4⅛; 25 Hallenbeagle, £4 3s. 9d.; 10 New Rosewarne, £11⅜; 50 Vallanzasca; 10 Tincroft, £18¼; 5 Clifford Amalgamated, £33¾; 100 Lady Bertha, 11s. 6d.; 25 North Buller; 50 Sovereign Gold, 7s. 6d.; 100 Sparnon; 50 East Bottle Hill, 2s. 3d.; 50 Wheal Pollard, 6s.; 85 North Minera (Preference), 8s. 6d.; 150 East Seton, 6s. 9d.; 1 West Sharp Tor; 125 Garrez, 2s. 6d.; 50 New South Caradon, 9s. 6d.; 100 St. Day United; 1 Devon Consols; 50 Wheal Hearle; 5 Cobre Copper, £34¾; 2 New Seton, £84½; 300 Rossa Grand Gold, 4s. 9d.; 10 Chiverton Valley; 100 Trumpet United.

GEORGE MOORE,
1, CROWN COURT, THREADNEEDLE STREET.

In any business that George Moore is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

20 Bryntail.	10 Gurlyn, 9s. 9d.	1 South Basset, £5⅛.
10 Brynford Hall, £11 17 6	5 Garildna, £1.	5 South Herodsfoot.
30 Bedol-Aur.	100 Gt. Nor. Copper, 1s.	1 St. Ives Consols, £29½.
3 Bryn Gwiog, £26¾.	10 Glasgow Car., £3 16s. 3d	20 St. Day United, 31s. 6d.
10 Bedford United.	10 Great East Lovell.	10 St. Just United, £2 7 9.
1 Condurrow, £82.	20 Great Laxey, £13¾.	30 St. Just Consols, 7s. 9d.
10 Carn Camborne, 21s.	50 Garreg (all cls. pd.), 2s 9d	5 St. John del Rey, £4S.
5 Craddock Moor.	20 Hallenbeagle, £3 16s. 9d.	1 Stray Park, £29¾.
5 Calvadnack.	10 Hingston Down, £3 12 6	10 Sithney Carn., £8s 8 9d
20 Charlotte United.	20 Illogan.	50 St. David's Gold.
10 Clifford Amalgamated, £34.	20 Kitty (St. Agnes), £6⅜.	50 Sparnon, 10s.
5 Cwm Erfin, £28½.	50 Linares.	1 Trelawny, £21.
5 Chiverton, £11⅛.	20 Merliyn, 1s.	70 Untd. Mexican, £6¼.
1 Carn Brea, £68.	20 Mineral Bottom.	20 Trewastha, 18s., call pd.
1 Caradon Consols, £10.	10 Marke Valley, £4 18s.	30 Vale of Towy, 5s.6d.
40 Crenver Abraham, £44.	50 Mariquita, 12s. 6d.	20 West Wheal Vor.
10 Central Minera, 33s.	30 Montes Aureos, £2¾.	20 Wheal Hartley, 15s.
5 Chiverton Valley, £5.	1 Nangiles, £30¾.	10 Wheal Hope.
100 Carnelioe Consols.	1 North Roskear, £20.	1 W. Chiverton, £73½.
20 Camborne Vean, £2 16 9	10 No. Treskerby, £2 18 9d	1 Wheal Seton, £225.
10 Chiverton Moor, £4 18 9	20 Nant-y-Iago, 8s. 9d.	100 Welsh Gold.
40 Dale, 10s. 3d.	5 New Rosewarne, £10½.	1 W. Caradon, £16¼.
50 Don Pedro, 12s. 9d.	30 No. Minera preference, 7s	30 Wh. Grenville, £8⅝.
20 Drake Walls, 27s. 6d.	20 New Martha.	10 West Condurrow, 6s. 9d
10 East Carn Brea, £8 12 6	20 North Basset.	20 West Trevelyan, 1s. 6d.
10 East Russell, £3 18s 9d	5 North Buller, £3.	20 West Martha, 20s.
5 East Lovell, £20.	23 North Shepherds, £5.	1 West Frances.
20 East Grenville, £4 12s 6d	15 North Crofty, £4 8s. 9d.	20 Wheal Hearle.
5 East Vor, £5⅛.	20 North Chiverton, £2¼.	10 Wheal Edward, 25s. 9d.
30 East del Rey, 12s. 9d.	10 Pentre Lygan (an offer wanted).	1 Wh. Mary Ann, £13¾.
5 East Caradon, £28 8s 9d	5 Prosper United, £5¼.	10 Wentworth, £15¼.
5 East Rosewarne, £3.	5 Polbreen, £14¾.	2 Wheal Rose, £45.
5 Gt. Wh. Vor, £34.	50 Port Phillip, 27s. 6d.	1 West Seton, £175.
5 Great Busy, £3¾.	30 Quebrada, £4½.	100 Worthing, 18s. 9d.
5 Great Fortune, £14½.	5 Pendeen, £5.	10 Wheal Crebor, 44s.
50 Great Moelwyn.	1 Providence.	10 Wheal Agar, £3⅞.
20 Great Devon & Bedford.	50 Rialton East Wheal Rose, £1 10s.	5 Wheal Uny, £6.
5 Great No. Downs, £5⅝.	30 So. Carn Brea, 16s. 9d.	20 Wheal Unity.
10 Grylls Consols, £5.	30 South Grenville, 8s. 9d.	20 Wheal Harriett.
5 Gonamena.	50 Santa Barbara, 10s.	5 Wendron Consols, £4¾.
1 Grambler, £8⅝.		50 Worvas Downs.
		50 Yudanamutana, £3 1 9.

And is a BUYER of 300 Vale of Towy, 5s.; 5 Clifford, £33½; 20 Wheal Grenville, £8½; 30 East Grenville, £5 8s. 9d.; 5 East Lovell; 20 Hingston Down, £3½; and 1 West Chiverton, £72½.

2, Adam's-court, Old Broad-street, June 3, 1864.

MESSRS. VIVIAN AND REYNOLDS, 37, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS of MINES, COMMISSION, and GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, and EVERY OTHER DESCRIPTION of STOCK.

Commission on sharetransactions 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

East Wheal Vor.—Judging from the reports received from practical agents respecting East Wheal Vor Mine, we beg to draw the attention of our friends to the property, and we have no hesitation in recommending it as a first-class investment at present market price of £5 to £6 per share. The mine is situated in the immediate neighbourhood of the prosperous Great Wheal Vor Mine, and offers more than ordinary chances of success. The Metal lode, which is now yielding such riches in Great Vor, has been found in East Vor sett, and is producing rich tinstuff, estimated at 60 per cent. There is in hand at present an available working capital of £6000.

MR. EDWARD COOKE, MINING SHAREBROKER, 75, OLD BROAD STREET, LONDON, E.C. Reliable information given on application, relative to the merits of mines, either for speculation or investment.

Mr. Edward Cooke having visited East Lovell Mine will be very happy to afford reliable information relative to the same.

June 3, 1864. Bankers: Alliance Bank, Lothbury.

MR. GEORGE BATTERS strongly recommends his friends to buy Tincroft, West Chiverton, Chiverton, Herodsfoot, South Caradon, Devon Great Consols, Great Wheal Vor, Chiverton Valley, Prosper United, Wentworth Consols, and Sithney Wheal Metal for investment. These shares will pay good interest for money at present quotations.—76, Old Broad-street, E.C.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.
Commission, 1¼ per cent. on all transactions.

MR. J. W. GILBERT, MINE SHAREBROKER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON.

MR. WALTER TREGELLAS, STOCK AND SHAREBROKER, 12, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

JOSEPH GREGORY, STOCK AND SHAREBROKER, 2, HATTON COURT, THREADNEEDLE STREET, LONDON, E.C.
Commission on purchase and sale of mining shares, 1¼ per cent.
Bankers: City Bank.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has BUSINESS to TRANSACT, at close market prices, in—

Brondloyd.	Great South Tolgus.	Tincroft.
Chiverton.	Hingston.	Wheal Uny.
East Russell.	Marke Valley.	Wheal Edwards.
East Darren.	North Treskerby.	Wheal Crebor.
East Grylls.	North Robert.	Wheal Rose.
Great Fortune.	Providence.	West Chiverton.
	Stray Park.	

T. Rosewarne has SPECIAL BUSINESS in Boscawen, Great North Downs, Hallenbeagle, Brigan, Great Wheal Busy, East Carn Brea, East Lovell, East Grenville, Wheal Grenville. Parties about to operate in the above mines should consult T. Rosewarne without delay.

June 3, 1864. Bankers: Bank of London.

WILLIAM BARTLETT, STOCK AND SHAREBROKER, MINING EXCHANGE, and No. 2, BUCKLERSBURY, LONDON, E.C.

FOR SALE:—

5 East Lovell, £19¼.	10 Wh. Grenville, £8⅝.	10 Crebor.
5 Chiverton Valley, £4⅛	2 Trelawny, £21¼.	20 North Treskerby, £3.
20 East Grenville, £5⅛.	1 East Basset, £66.	2 Great Wh. Vor, £34.
13 Wheal Curtis, £7⅞.	2 Wheal Seton, £227½.	10 Clifford Amal., £34.

Mr. W. Bartlett recommends for immediate purchase Nangiles, East Grenville, Wheal Trelawny, and Wheal Grenville, all of which are certain to advance in price.

Business transacted at nett prices, or on the usual commission.

Bankers: Alliance Bank.

MR. JOHN B. REYNOLDS has REMOVED from 37, Old Broad-street, to 54, THREADNEEDLE STREET, and is commissioned to SELL the FOLLOWING SHARES:—

2 Vigra and Clogau.	30 St. Just Con., 15s. paid.	30 Penrait.
25 Crowan Consols.	50 ditto 20s. paid.	50 Rhafna, 10s. paid.
50 West Jane.	50 Silver Vein.	25 Great Retallack.
	100 West Martha.	5 Basset and Gryils.
June 3, 1864.	40 Ciara United.	25 East Basset & Gryils.

MESSRS. ROBERTS AND CO., 31, NEW BROAD STREET, E.C., have selected a LIST of DIVIDEND and PROGRESSIVE MINES which they can strongly recommend. Also, Bank, Railway, and other shares.

Commission, 1¼ per cent.

Office of Roberts and Co.'s "Price List, and Stock and Share Reporter," price 3d.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREBROKERS, 2, ADAM'S COURT, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C. (Established Eleven Years.)

TRANSACT BUSINESS in BRITISH AND FOREIGN MINING SHARES and OTHER SECURITIES at closest prices, nett or on commission, but not being DEALERS only execute orders confided to them.

Telegraphic messages to buy or sell shares of every description promptly executed for immediate cash, or the fortnightly settlements.

Commission, 1¼ per cent. on all transactions.

June 3, 1864. Bankers: London and Westminster, Lothbury.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER,
2, PINNER'S COURT, OLD BROAD STREET, LONDON.

Mr. T. E. W. Thomas strongly recommends the purchase of Wheal Grenville shares at present rates.

MR. FRANCIS G. LANE, No. 2, ROYAL EXCHANGE, LONDON, E.C., has the following SHARES FOR SALE:—

50 St. Just United, £2.	5 Wentworth Con., £15⅝	50 Wheal Crebor, 43s.
50 Charlotte Utd., 5s.	50 Great Devon & Bedford, ⅝ prem.	20 Grylls Wheal Florence.
20 Sithney Carnmeal, £7⅛	50 Dale, 11s.	3 Calvadnack, £6.
100 West Condurrow, 2s.	25 Hallenbeagle, £4⅞.	10 Great Wh. Vor, £34½.

BUYER of Hallenbeagle at £4¼, and Great Vor at £34.

Parties of respectability can have transfers registered into their names previous to payment. Bankers: London and County Bank.

MR. JOHN R. PIKE, GENERAL SHAREDEALER, OFFERS his SERVICES to INVESTORS,
3, PINNER'S COURT, OLD BROAD STREET, LONDON.

SHARES WANTED IN THE FOLLOWING MINES.
State number and lowest price:—

Kitty (Lelant).	Rosewarne United.	Ding Dong.
Gonamena.	Trencrom.	Camborne Vean.
Grambler and St. Aubyn.	West Stray Park.	Bryntail.

HUBERT BARNES RYE,
Mining Offices, 77, Old Broad-street, London, June 3, 1864.

MR. WM. BIRDSEY, MINE AND SHAREBROKER, No. 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.
BUSINESS TRANSACTED in BRITISH and FOREIGN STOCKS and SHARES.
Terms, 1¼ per cent. Bankers: London and Westminster Bank.

MR. H. WADDINGTON, MINING AND SHAREBROKER, 20, THROGMORTON STREET, LONDON, E.C.
Shares in railways, mines, &c., bought and sold on the usual commission.

JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C.
SHARES in MINES BOUGHT and SOLD on commission, at 1¼ per cent., for immediate cash. Bankers: London and Westminster, Lothbury.

THOMAS HAMILTON (late of Truro), STOCK AND SHAREBROKER,
4, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C.
Mine shares bought and sold on the usual commission.

MR. MATTHEW GREENE, SHAREDEALER, 27, AUSTINFRIARS, E.C., has SPECIAL BUSINESS in the FOLLOWING SHARES:—

85 East Rosewarne, £3¾.	25 Great Laxey, £14¼.	10 East Caradon, £29½.
60 Wheal Crebor, 44s.	10 Chiverton, £11⅛.	1 Great Vor, £35.

Bankers: London and County Bank.

MR. J. H. COCK (late of Redruth), STOCK AND MINE SHAREBROKER,
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

J. H. Cock, having had 12 years' experience in the mining market at Redruth, is in a position to give sound advice to those about to buy or sell mining property.

MR. WILLIAM WARD (late with Messrs. Dunsford and Ranken), SHAREBROKER, 29, THREADNEEDLE STREET, LONDON, E.C., transacts business in British and Foreign Mine Shares, and other securities, at the closest prices, but not being a dealer only executes orders entrusted to him. Telegrams to buy or sell for cash or the fortnightly settlements promptly attended to.

In any business that W. Ward is favoured with, in which he is the buyer, he will give cash on receipt of transfer.

Commission, 1¼ per cent. on all transactions.

Bankers: City Bank.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., pays particular attention to British Lead, Copper, and Tin Mines, for which he solicits orders to sell or buy, at nett prices.

FOR SALE:—25 Sortridge Consols, 2s. 3d.; 10 Billins, £13; 10 Sithney and Carnmeal; 40 Vale of Towy, 6s. 6d.; 20 Chiverton Valley; 50 Prince of Wales (tin), 4s. 6d.

BUYER of Central Minera. State number and lowest price.

INVESTMENTS FOR CAPITAL.
Paying 10 to 20 per cent. per annum in bi-monthly and quarterly dividends.
SHARP'S RAILWAY, BANKING, AND MINING CIRCULAR
(Gratis and post free)
Should be CONSULTED by the PUBLIC before INVESTING. It contains reliable information and advice to capitalists. Reports on Mines, Railways, Banks, Insurance, Docks, Loans, and all Financial Companies, &c., Record of Market Prices, and is the only SAFE GUIDE for the Investment of Capital.
HENRY GOULD SHARP, 32, POULTRY, LONDON, E.C. Established 12 years.

MR. EDWARD BROOK, 5, BANK STREET, LEEDS, MINING BROKER.
WANTED TO BUY:—5 Wheal Margery, and 5 Wheal Crebor; state lowest price.

MANCHESTER.
MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER,
ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER.
A Monthly Investment Circular on application.

ELFORD, WILLIAMS, AND CO., COPPER ORE WHARFINGERS, METAL AND GENERAL COMMISSION AGENTS, SWANSEA.

TO BE SOLD, SEVERAL THOUSAND BLASTING CARTRIDGES. Each cartrige is ready fitted with the very best waterproof blasting fuze. They are made up in sizes guaranteed to be equal in effect to 4 ozs., 6 ozs., 8 ozs., 10 ozs., and 16 ozs. of blasting powder, of the very best quality.

At the following prices they will be delivered at any railway or port in the United Kingdom, carriage free:—

Those equal to 4 ozs. of powder	21s. per 100
Those equal to 6 ozs. of powder	26s. per 100
Those equal to 8 ozs. of powder	33s. per 100
Those equal to 10 ozs. of powder	42s. per 100
Those equal to 16 ozs. of powder	60s. per 100

Apply, or address, to Bullough and Co., merchants, 9, St. Mary's Gate, Exchange, Manchester.

WHEAL CARADON.—I strongly advise the shareholders not to part with a share until the two points in cross-cutting be proved. The shares ought to be held even at three times the present quotations.
JOHN REYNOLDS, Broker to the Company.
61A, St. Paul's-road, Camden-square, London, June 3, 1864.

WHEAL CARADON MINE.—FOR SALE, FORTY-FIVE and THIRTY SHARES in this admirably situated property, at the low price of £2 5s. per share. An OFFER WANTED for 10 Wheal Emma.—Apply to Mr. Thomas Gosse, 1, Longmead-buildings, Bath.

WANTED, a 24 in. WINDING and STAMPING ENGINE.
Particulars to be forwarded to Mr. Thomas Hollow, Lelant, Hayle.
March 28, 1864.

MINES IN GERMANY, IRON AND MANGANESE.—SEVERAL MINES, situated near the Rhine (within three miles of Coblentz), are TO BE SOLD at once, owing to the sudden death of the proprietor. The ore is of excellent quality, and has been smelted to great advantage in Neuwied, and various other places.—Further particulars may be had of Carless, Bladden, and Co., 2, New London-street, London, E.C.

HALSE'S WEEKLY MINING AND SHARE CIRCULAR.—No. 14 will be ready on Monday. As this will be the commencement of the second quarter, those parties who may wish to have it regularly mailed to them during the quarter are requested to send 13 stamps to Mr. Halse, 28, Threadneedle-street, City, to prepay the postage. No charge is made for the Circular.

Original Correspondence.

COAL-CUTTING BY MACHINERY.

SIR,—A machine of a very novel construction, and far superior to anything that has yet appeared, is near completion at Blaina Ironworks, Monmouthshire, from a patent of Mr. J. G. Jones, of London, the inventor. Its advantages are that it will cut the horizontal and vertical cuts, and is capable of working the "dip and rise" at any angle. This machine is extremely simple, having only one cylinder and one cutter, and it is the opinion of practical men that it is all that can be desired in a coal-cutter.

June 1. OBSERVER.

RECENT COAL-CUTTING PATENTS—W. AND S. FIRTH'S PATENT.

SIR,—In last week's Journal some inaccurate observations are made upon the invention of which I am one of the patentees, and it is stated that "the use of the oscillating cylinder caused a difficulty as to the stability of the machine," &c. Now, I beg to assure you that there is no foundation for this allegation—no such difficulty having arisen with our oscillating cylinder machine, which is, in practice, much steadier on the road, and will do more, penetrating to a greater depth, in less time, than any other yet applied invention. You will shortly learn that the oscillating cylinder machine possesses some other advantages, but for the present I will content myself with asking you to give me the opportunity of correcting the statement to which I refer. S. FIRTH.

Burley Wood, near Leeds, May 30.

RECENT COAL-CUTTING PATENTS.

SIR,—The article on recent coal-cutting patents, and the report from Northumberland and Durham, contained in last week's Journal, are so framed—accidentally, no doubt—as to greatly mislead all who do not know the true circumstances of the case; and for such we venture to ask you to allow us to say a very words, as it is not our intention to enter upon a newspaper controversy. We prefer to work out our undertaking, and when perfected to place it fairly in the hands of those who desire to make use of our enterprise—thus far, we are sorry to say, both costly and troublesome.

1. The machine which it was stated was introduced by us into our mines in 1861 "was the first machine which proved of any real practical utility," was really found not to possess any real practical utility, which we, however, only discovered at a great cost. It was practically a failure; but, 2. On Nov. 26, 1861, we took out a patent for the compressed air-engine machinery, and have followed up the invention at the expense of many thousands of pounds, "until the mode of cutting straight on with economy and dispatch was ascertained;" and, when this was effected beyond any question, those who had for a long time been living out of our capital imitated our machinery; and, through the curious state of the Patent Law in England, are enabled to put us to a great amount of legal expenditure before they can be restrained. Ultimately we believe this will come about, and in the meantime we must be patient.

3. The writer states that "the oscillating cylinder was found to cause so much oscillation in the machine itself that the alteration was of no practical utility;" and again, in the same article, "It has already been observed that the use of the oscillating cylinder caused a difficulty as to the stability of the machine;" and he goes on to describe another gentleman's invention, made to obviate these difficulties. In these several allegations there is not one particle of truth. The machines have all been tried in our mines, and we assure you that the statement has just reversed the results. For steadiness upon the road, depth of cut, and economy, no such machines have ever been put into operation at the West Ardsley Colliery, and it "obviates" several of the difficulties of its predecessors.

4. The "Durham" paragraph, after referring to a machine which is *not ours*, proceeds as follows:—"The machine is still in use at the Hetton Colliery, and is understood to be doing well there also." Now, as it happens that the machine at Hetton is our property, made at these works, under *our patent of November*, 1861, which has been constantly at work there for nearly nine months, and is still "doing well," we think we have a right to ask you to give us the benefit of your correspondent's accidental testimony; and, as "fair play is a jewel," do not give that little credit to those who, at all events, have no claim to it.

West Ardsley, May 30. THE WEST ARDSLEY COMPANY.

MACHINERY FOR WINNING COLLIERIES.

SIR,—I trust in your judgment of a reply to your requirement of the best machinery for winning a mine, that brevity and simplicity of language will not tell greatly against the writer.

Since the perfecting of the management of the steam-hammer, and the sad result of the breaking of steam-engine beams, with the saving in erections and iron, it is become clear that the principle gone upon (I believe) 40 years ago, at the Walbottle Colliery, in the North, is the true one for pumping water at mines—the cylinder over (or in) the top of the pumping-shaft, at that place a high-pressure one, the steam passing from it to a low-pressure boiler or tank, for working the winding-engine on the condensing principle, or low-pressure. At collieries where small coal is almost worthless, while *coke* from it is in such request for railway purposes, this double use of the steam might be combined with the steam being obtained by the heat of coking-ovens on a large scale, as done by Mr. Jeffries for his foundry steam-engine in the Borough, in 1830; the oven charged at night giving steam the next day. At a mine of metals the cost of coal may be so much higher that such double use of the steam is a still greater object, and coke finds its value everywhere; but at other than a colliery engine we cannot suppose ovens equal to a large engine's consumption of steam. You require only an outline, and I will not go into the questions of steam cut off, &c., which, if not nonsense at a blast-engine, must be nearly so where, as at a pump, the lifted weight is uniform. If the steam be had by boilers, the simple point of length exposed to the heat is, probably, worth the whole of the trumped up improvements; and I wish to hear of a boiler of vast length divided into three or four lengths, the steam produced by each taken separately to show the real effect of the heat on each, as we know black hot iron evaporates water more quickly than red. Having spent years in the introduction of anthracite to the works, &c., of London, and so far as I made out, in New York, my mode of using it having been taken there by Dr. Nott (termed the father of its use there), I claim a good experience in the production of steam of half a century standing; and the idol of New York, the first Collins' steamer, *Atlantic*, was a field of my action also, as to fuel and boiler, by recommendation of the leading iron company in the States.

I now come to the Pumps of a Deep Shaft. The use of as many plungers as of lifts gives equal lift to the piston of the steam-engine upwards and downwards, but it is a general blunder to have a plunger for the bottom lift, which, as the jacket or cover of the packing cannot be screwed down when the water has risen a few feet, becomes useless, as at Clay Cross, on the occasion of the calamity there, while the bucket and clack of a pump may be renewed even when the water is near the top of it. In fixing the pumps and stays, regard should be had to ladders, for escape or general use of the men; and I beg to refer to my letter on Ventilation, in the *Mining Journal* of May 14.

Should these hasty lines attract attention, I shall be happy to reply to any query put, or to wait on those requiring my services at merely very moderate expenses. I have "won" more seams of coal and ironstone than any other man. The Butterley Company will, as well as others, estimate for what I propose when the scale is given them. THOMAS BUTLER.

3, *Bank-street, Sheffield.*

PREVENTION OF COLLIERY ACCIDENTS.

SIR,—I am not aware whether the letter from Mr. Butler, which appeared in the Journal of May 14, has been preceded by any other communication on this subject; I, therefore, beg leave to make a few remarks on the matter, as I find it in his note of the 10th inst.

On ventilation he says, "An approach to safety will be found in the avoidance of the diversions and splits of the current of air." This is somewhat contrary to the experience of other practical men. All of us who have a knowledge of mining ought to be aware that by splitting the air we increase the ventilation of the colliery, at the same time fresh air is sent into each district of working. We thus see that by splitting, should a blower of gas come off in one district its effects will be more likely to be confined to that district, instead of passing all the men in the pit, and thus increasing the danger. By the air being coursed all round a large colliery it gets foul and unfit for its work by the time it arrives at the last part of the workings. Besides, the large number of doors required to course the air all round is a serious objection to that mode of ventilation. First, it is an expensive matter, and a hindrance to the dispatch of work. Second, it increases the dangers of the pit, for in the event of a door being left open the air naturally takes the short route, leaving the inner part of the pit unventilated, which in a fiery mine would be most disastrous.

I have long thought in an extensive mine that the principle of splitting is unimpeachable, unless indeed it be carried too far. That is, each split must be of sufficient strength and force to remove all foulness which may arise in the district through which it passes.

Mr. Butler's method of sending the air into a face of workings on one side of the pit, and returning it into a face of workings on the other side, will doubtless answer in some cases; but I must say I think that that would not be my plan if the vein were fiery, and the number of men in each face large; for I think that after returning from heading No. 1 it would be too foul to be poured upon the workmen and their lights in face No. 2. By a simple split at the bottom of the pit fresh air might be sent right and left into both faces, each current returning to the upcast shaft without the aid of double doors at all. To lay out the ventilation of a mine a plan of the workings is first required. I may quote many able authorities in favour of splitting, but fear it would take too much of your valuable space.

With regard to "long work," of course I am not going to say that it is or is not the best plan of working; my experience is that what is a proper mode of working in one district is impracticable in another. In one district that I was in where long work was pursued the pillar and stall system was introduced, but this was to be abandoned at once in consequence of the "creep." In another district where pillar and stall was carried out long work was tried, but as sufficient rubbish could not be had to fill up the "gob" it was abandoned. In another case, where we worked the coal by steps, neither long wall nor pillar and stall would; and that the owners would gladly avail themselves of any improvement in the mode of working, may be judged from the fact of the quantity of timber consumed, amounting to 4½ per cent. of the coal worked. W. FAIRLEY.

Swansea.

TAMPING WITH IRON RODS.

SIR,—In last week's Journal you have an article on Tamping with Iron Bars, and you suggest that there is now a good opportunity for improvement in the manufacture of the same. The difficulty consists in the mode of fixing the copper end on the bar, so as to adhere firmly in working. After repeated trials for the last two years I have overcome that difficulty. I have made all the tamping bars used by the miners at the Charlestown United Mines for the last twelve months, and have supplied them in large quantities to Messrs. W. West and Sons, St. Blazey, who supply them to the different mines in that district. Mr. West informs me that they give entire satisfaction to all miners who have used them. I may add, that from the manner in which the copper is put on the end of the bar it is almost impossible for it to come off. I am now prepared to supply any quantity of the bars, and beg to send one to your office for inspection.

Birmingham, June 2. STEPHEN BARKER.

GUN-COTTON.

SIR,—In discussing the merits of this invention, which is now by no means new, having been discovered in 1847, I find it stated as follows in "Timbs's Year Book of Facts" for 1864:—"It seems a disadvantage of this material as compared with gunpowder that it explodes at a temperature of 277° Fahr.; but against the greater liability of accidents from this cause may be set the almost impossibility of explosion during the process of manufacture." If it explodes, then, at the temperature stated above it is *more dangerous* than gunpowder. Dr. Gladstone made the above statement in his chemical report upon gun-cotton, read before the British Association last year. Messrs. Prentice and Co., who have established a manufactory in Suffolk, among the general advantages enumerated by them, say—"It is much safer than gunpowder, owing to its being manufactured in the shape of rope or yarn." There appears to be a contradiction between Dr. Gladstone and Messrs. Prentice and Co. on this *all*-important point. A MINER.

INSPECTION AND REGULATION OF MINES.

SIR,—Until recently the owners of mines and collieries were under no Government regulations; but in consequence of numerous accidents to the working miner, it was found necessary to pass laws for the regulation and inspection of mines. The first Act of the Legislature (5 and 6 Vict., c. 99) provided for the appointment of competent persons to inspect all mines, with powers to enter and examine the mines and the buildings and machinery connected therewith, to enquire into the state and condition of the labourers, and to report thereon to the Secretary of State. By this Act the employment of females, and of boys under certain ages, within a mine is prohibited; and boys under the age of 15 are not to have charge of engines, machinery, and works situate upon the surface; while by a subsequent Act the last mentioned provision is extended, and made applicable to boys under the age of 18 years.

By the 23 and 24 Vict., c. 139, permission is given to keep gunpowder in certain quantities upon the mine; and where large quantities are considered necessary the Secretary of State has power to authorise larger quantities to be kept upon the premises.

Another important question connected with the regulation of mines is the payment of the miners' wages. Wages are required to be paid in the current coin of the realm, unless the labourer consents to receive them in bank notes; and as it is considered undesirable to encourage large masses of miners to assemble at public-houses, wages must not be paid at public-houses, and if paid there may be recovered, as though they had not been paid at all. Wages may be recovered before justices of the peace when the claim does exceed a certain amount.

The conduct of masters, owners, and labourers towards one another is a subject of some interest, and it is satisfactory to know that many disagreements, as well as misdemeanors, may be summarily settled by a local magistrate. Differences between the employers and the employed often lead to a combination of the workpeople against the employers, and, *vice versa*, to combinations by masters against their workpeople; and it is well that the extent of the right of such persons to form societies for the protection of their interests should be understood. Any society which restricts the rights of individuals is illegal: masters as well as labourers must be free.

All the foregoing questions are applicable to all mines whatsoever, but the Government has found it necessary to pass other Acts of Parliament in reference to collieries and ironstone mines. In addition to the before-mentioned provisions respecting the inspection of mines, further provisions are made for the especial regulation of coal mines: the Inspectors are to be provided with maps and plans; owners are to give notice to the Inspector of the district of all accidents; general and special rules are to be adopted for the guidance of the workpeople; a proper ventilation is to be observed in the mine; and no mine without a license is to be worked with only one shaft for the ingress and egress of the miners. Whilst these Government regulations do not impede private enterprise, they are a salutary check on reckless conduct on the part both of the employed and employer.

These several questions have not escaped the attention of Mr. Rogers, the writer of "The Law of Mines, Minerals, and Quarries," to the publication of which you recently referred, and it would be well if the work were read, not only by Government Inspectors, but by owners, masters, and others connected with mines.—*June* 1. R. A. B.

CROWAN DISTRICT.—No. III.

SIR,—Two years since the only mine working in this parish was South Crenver; there are now in actual operation eight, four of which have ample steam power at command. The names of those at work are Crenver and Abraham, Crowan and Wendron United, South Crenver, Wheal Curtis, Clowance Wood, Crowan Consols, Binner Downs, and West Binner Downs. These mines occupy most of the west of the parish, which is the portion most noted for its production of the ores of useful metals. There is still, however, a small spot occupying the extreme west of Crowan which, though most important, has, until lately, been quite overlooked. My first letter induced some enquiry respecting this ground, which has resulted in applications for the whole of that unallotted, a large and valuable part of which is about to be re-worked under the name of Great North Vor. It is to this ground, so long abandoned, that I wish particularly to direct the attention of your numerous readers, and hope to convince them that here is a most favourable locality for investing their superfluous cash. I shall include in these remarks the "knocked bals," Strawberry, Julia, Binner Downs, Wheal Mount, Wheal Mary, and Wheal Janey, which, although they have been lately included under new leases, are still idle, nor is it at present intended, with the exception of Binner Downs, to re-open them.

It will be seen from a reference to the geological map of the district, published by you, that the mines I include occupy scarcely 1000 acres, and have yet returned an aggregate profit of 800,000*l*. Such an immense sum, paid as dividends from so small an area, leaves one at a loss to explain the reason of their present state of desuetude, especially when we remember that so much capital is expended in proving virgin ground, where, to say the least, there is considerable uncertainty of discovering a good lode. Here lodes are fully discovered, known to be good, and are most of them opened on for considerable distances, whilst others, untried, are, from the prevalence of shallow deposits, almost sure of being profitable soon after opening them. The whole of the mines referred to have been worked to depths varying from 30 to 150 fms., that is as far as the former miners could work them to a profit; but as soon as a poor floor of ground came in they gave up, and went to some contiguous lode, which they treated similarly. I think it may fairly be admitted that the last generation of miners in the parishes of Crowan and Gwinear never showed a disposition to prove their mines to any depth. In West Tremayne this trait is strongly marked; there are here nine strong well-defined lodes, four of which traverse the sett for 1¼ mile, the backs of which have been worked to a depth seldom exceeding 100 fms. By an adherence to such policy the present adventurers now find themselves driven to the extreme west corner of their extensive grant. Poor channels of ground occur in the richest mines, and it is by sinking or driving through them that large mines are made profitable. It is bad mining to stop poor ends and merely work the rich ones. This being admitted, it is evident that the Crowan district has the brightest days of its existence as a mining parish yet to see.

Before proceeding to a somewhat detailed account of these forgotten mines, a concise notice of the strata will be not without its value in rendering the matter more clear and apprehensible. To the east of the district is a high range of granite, which culminates at the Crowan Beacon in a tor 850 ft. in height. There are here deposits of tin both in surface patches and in veins. No mines of value have, however, been found here, the granite having a hard crystalline texture under the exfoliated softer surface, which is here of no very great depth. This hill slopes rapidly to the celebrated Crenver and Abraham Mines, near the eastern limits of which the slate first appears, resting on the granite at no very high angle, until when it reaches in its slope westward the rich old mines of Wheal Sarah and Binner Downs, about 200 ft. above the sea, the slates are little removed from horizontality. The killas, which I have already stated to be most favourable in its composition and texture, extends through the whole district, and is overlapped at Treasury and Carzise by other slates, forming a portion of the district to the north. These slates vary in thickness, and consist of variegated soft lamine, mostly of a bright red colour, decomposing rapidly on exposure to the atmosphere; and, being measre in mineralising agents, are not regarded as favourable to the deposition of minerals. Bunches of grey ore have been met with near cross-courses, which in the blue slates are replaced by yellow ore. The whole of these slates are much disturbed by flookans, spar cross-courses being unfrequent. One of these flookans is 12 ft. wide, with so rapid an underlie that it gains 12 ft. west to every fathom in depth. Another, the Great Vor flookan, is in places 14 fms. wide, and heaves the lodes and elvan courses at Great North Vor 44 fms. 5 ft. The lodes are generally large, with well-defined walls, and produce on the back zinc-blende and arsenical mundic, enclosed in "hungry" looking spar, which at the 20 gives place to yellow ore and more congenial quartz, whilst in the 30 good courses of yellow ore have always been found. In the 80 a somewhat poor channel of ground often comes in, which as yet in the mines I am noticing has not been sunk through. The Great Wheal Vor flookan passes directly through the mines the working of which I am advocating; and it has been on lodes in connection with this that most of the large amount above stated was gained. At Leedstown Consols the effect of this flookan is displayed in a most interesting manner; and, if appearances are to be trusted, there must certainly be some splendid lodes here. My letter has extended so much more than I intended that I must postpone until your next issue the detailed description of the mines in this district. BRENTON STOCKS.

18, *Hatton-garden, June* 1.

WEST METAL.

SIR,—We had hoped that the correspondence on this subject might have ceased with our last letter, but we cannot allow Mr. Schofield's remarks, in the Journal of Saturday, to pass uncontradicted. We never wrote that two lodes, 60 or 70 fathoms apart at surface, one underlying 2 feet in a fathom north, and the other 4 feet north, could form a junction 90 fathoms deep, nor could anyone reading our remarks fairly attach any such meaning to them, though Mr. Schofield has. We said that in *Great Wheal Vor*, the lodes had formed a junction 90 fms. deep; and added—"Of course" (our remarks) "refer to the *east* of the flookan" (that is in Great Vor), "as what may happen *west* of it is the matter in dispute." From a slight divergence south of the south lode, the old plans of Wheal Vor show the two to be 60 or 70 fathoms apart at surface *west* of the cross-course; and in consequence of Mr. Schofield, in a previous letter, having asked "who were the authorities that had ascertained that a junction of two lodes in one mine would be repeated in another?" and that it "should have been proved the two lodes had separated again going westward," we added—"So far *from having to separate again going westward*, they were 60 or 70 fms. apart at surface, and not likely to be together above the 90," the word *above* being in italics. At what depth the lodes *would* form a junction we did not calculate nor state.

Mr. Schofield at last sees what we have all along said, that the *south Metal lode, or Schneider's*, is that which runs through the north part of West Vor; and he has the authority of Capt. Gill for stating its average underlie to be 3¼ feet in a fathom *north*; "but," he adds, "this has long ago been understood to be the Metal main (formerly Schneider's) lode, and so Capt. Gill calls it." We said last week that the *present* agents of Great Vor had mis-called Schneider's, or south lode, *the Metal lode*, and hence had arisen the confusion; but we re-assert (what the only plans to be relied upon prove), that the Metal main lode, and Schneider's or south lode, are at surface two perfectly distinct lodes, and that the former runs through West Metal at surface; and that the latter (which Mr. Schofield now, upon Gill's authority, says underlies 3¼ *feet in a fathom north*) will also be in West Metal by the time it can be productive. And that even if it were the main Metal lode, and with the underlie of only 3¼ feet in a fathom, it could be of no value whatever to West Vor.

We may add that the working plan of Great Vor shows its underlie to be *sometimes* considerably *more* than 4 feet in a fathom north; and if Mr. Schofield will make further enquiries, he may possibly learn that it is the peculiar characteristic of the Metal lode to be at times a "miserable fissure," and opening out into a large lode, and again becoming small, &c.—*June* 2. WATSON AND CURLL.

MINING LAW—COURT OF STANNARIES.

SIR,—The correspondent who wrote in last week's Journal, under the signature "T. B. D.," is evidently not a shareholder in Old Wheal Neptune, and the next time he meddles with what does not concern him, and makes personal attacks upon anyone about matters of which he has little or no knowledge, it would be more to his credit if he were to attach his proper name and address to his correspondence. His letter savours so much of Cornwall as to belie his address from Manchester, especially as he professes to know more about the company than was contained in the newspaper reports. I should not condescend to take any notice of his numerous misstatements, did he not designate me as a promoter of the company, which I take the opportunity of denying, having only acted as its professional adviser. I do not know why cost-book companies are not as liable to be dragged into litigation as limited liability companies, as witness West Basset, South Frances, old Great Wheal Vor, &c., the only difference being, perhaps, that when they have a lawsuit they manage it in a most gigantic manner, by incurring thousands instead of hundreds of pounds for law costs. Is "T. B. D." aware that within a few pounds of 300*l*. were paid to various solicitors in Cornwall for their costs of preparing the leases of Neptune Mine? Notwithstanding "T. B. D.'s" twaddle about the paternal character of the Vice-Warden's Court preventing my being committed for contempt, I (with the concurrence of the majority of the shareholders and creditors of the company) have had the audacity to appeal to the Court of Chancery from the decision come to by the Vice-Warden. The question is too important to limited liability companies to be passed over lightly; it involves the issue whether a company having assets sufficient to pay 40*s.* in 1*l.* is to be allowed to conduct its winding-up after its own fashion, by adopting the economical method of winding-up voluntarily, as pointed out by the Legislature, especially as it is ready and willing to pay off all objecting creditors, or whether its surplus assets are to be wasted in the heavy costs and expenses of winding-up by the Court of Stannaries, and its property, on the other hand, sold for much less than it would otherwise fetch, as it is well known that sales under the auspices of the Court of Stannaries do not realise nearly so much as those made in the ordinary course?—*June* 2. A PULBROOK.

SOUTH AUSTRALIAN MINES.

SIR,—There is no denying the fact that a strong feeling exists in the City as to the origin of the various letters and circulars which have been issued in reference to the YUDANAMUTANA MINE; indeed, it is openly stated that Mr. William Paxton, of Turnham-green, has been the principal detractor. I am not aware whether such be the fact or not; but as this gentleman is a public man, through his connection with the North Rhine and Great Northern Mines, as one, if not the principal, vendor of both these properties, which have turned out so detrimental to the interests of all concerned, it is incumbent on him to explain, openly and publicly, the ground of any objection on his part. It is due to the public that he should do so.

It is clear that these mines, for which large sums of money were received—it is said that he and two of his friends sold the Great Northern alone for 70,000*l*.—have not yielded 1*s.* of benefit to the shareholders, indeed, are almost worthless; while the Yudanamutana, which he did not sell, has realised large amounts from the sale of ore, and is a property of acknowledged value. The fate of the North Rhine is sealed, and the Great Northern must quickly follow, with total loss to the shareholders and obloquy on the directors; while the vendor and his two friends enjoy the fruits of these exorbitant sales. Surely if there be any ground for impugning the merits and prospects of the Yudanamutana Mine, in what light ought the public to regard the result of the North Rhine and Great Northern, which were so essentially his own? Now let Mr. Paxton speak.

London, June 2. FAIR PLAY.

WHEAL TREEBY MINING COMPANY.

SIR,—As solicitors for Mr. Robins, the purser, we attended a meeting of this company on Friday last, and complained of a statement inserted in the Journal of March 26, 1864, at page 219. The meeting then, amongst other business, passed the special resolutions which we enclose; and relying on your sense of justice, we are assured you will cheerfully publish the resolutions adopted, and so remove (as far as a counter-statement can do so) the damaging effect to our client created by report of the former meeting.

17, *Great Knight Rider-street, Doctors Commons, May* 31. PECKHAM AND SALT.

At a meeting of the adventurers of the Wheal Treeby Mining Company, held at 156, Cheapside, on May 27, 1864, present Messrs. Paull, Berry, and other shareholders representing 3700 of the 4000 shares of this company, the following resolutions were adopted:

1.—That the meeting desires to express its regret that in the report of the meeting of this company of March 18 last, and inserted in the *Mining Journal* of the 26th of that month, a statement was made to the prejudice of Mr. Robins, the purser, and this meeting now declares that Mr. Robins was duly authorised, by a resolution of a meeting of shareholders, to pay away the balance of money in hand, although that resolution by an oversight was omitted to be entered in the company's books.

2.—That this resolution be forwarded to the Editor of the *Mining Journal*, with a request to publish it.

WHEAL TREEBY MINING COMPANY.

SIR,—The resolution you have for this week's Journal, and which your courtesy has permitted me (as a shareholder who attended the meeting) to peruse, is *not* the resolution which was passed at the meeting. I retain a copy of the resolution as passed by the meeting, and which copy was examined in the room by myself and Mr. W. P. Paull, solicitor, of Plymouth, before we left the meeting. Subjoined is a verbatim copy of the resolution so passed at the meeting:—

"That this meeting desires to express its regret that, at a meeting of this company, held on the 18th of March ult., and reported in the *Mining Journal* of the 26th of that month, a statement was made to the meeting to the prejudice of Mr. Robins, the purser; and this meeting now declares that Mr. Robins, the purser, was duly authorised, by a resolution of a meeting of shareholders, to pay away the balance of money in hand, though that resolution, by an oversight, was omitted to be entered in the company's books."

Both Mr. Paull and myself declined to vote for the resolution, on the ground that it ought to have stated by whose fault the resolution authorising the payment of the money

ved to was omitted to be entered in the company's books. That resolution now ap- to have been passed in 1859, although there is no minute whatever of it in the ny's books. No meeting was called by Mr. C. Robins, the purser (for well under- reasons) between 1859 and 1864. The moneys said to be repaid (1777*l.* 10s. 7d.) ntered under date of 1861, though the meeting is said to have taken place in 1859. e meeting last Friday, I proposed an amendment to the resolution, which was se- d by Mr. Paull, but opposed by Mr. Robins. The amendment was, that after the "oversight" the words "by the purser" should be introduced, but the amend- "oversight." It is intended, by the resolution sent to you for insertion, to ques- was negatived. It is intended, by the Wheal Treeby meeting, inserted in the Journal the correctness of the report of the Wheal Treeby meeting, inserted in the Journal arch 20 last. I can only say that Mr. Paull admitted that he had made the state- contained in that report, but that *the report itself was correct*. That gentleman ner stated that if the resolution of 1859 had been entered in the cost-book by the ser, as it ought to have been, he (Mr. Paull) would not have fallen into the error, ch he was then very happy to correct. I must postpone further comment on these ordinary proceedings; on another occasion I may have something to say respecting statement of Mr. Robins, that he furnished the accounts of Wheal Treeby to Mr. ing.—*I am, Buckler's-bury, June 2.* J. BERRY.

GOLD MINING IN VICTORIA—No. I.

BY PHILIP A. EAGLE.

HISTORICAL SKETCH—MANAGEMENT—PRODUCE—CAUSES OF DECLINE—POPULATION—REMARKS.

The desire for gold has given the impulse to almost every great move- st which has contributed to the distribution of the human race. We n from history the numerous conquests, invasions, and explorations have been effected under the direct influence of what the poet desig- s the "auri sacra fames;" how in the middle ages unparalleled hard- s were endured in the eager search for some hidden El Dorado; how ds were depopulated by exterminating warfare, and again re-peopled he adventurous thousands of the Old World. But the most signal ex- tion of the power of the precious metal was reserved for the nineteenth ury, and in the development of the two chief gold-producing countries modern times we witness a progress which has no parallel in the an- of colonisation.*

The winter of 1851 was a memorable epoch in the history of Victoria. olitical enfranchisement, the erection of the settlement into an independent pro- e, was almost immediately followed by the finding of gold in several parts of the istry. The first public announcement of a gold field was made on July 5, and within a ot of five weeks Ballarat, Mount Alexander, Clunes, and Anderson's Creek were opened. d had been found at Port Phillip prior to 1851. Brentani's nugget (a mass of gold), ob- ed in the Pyrenees in 1846, and a number of small specimens of native gold, picked d to various times by station owners and shepherds in other parts of the settlement, d to the more recent discoveries of Dr. Bruhn (a mineral explorer, who commenced bours in January, 1851) near Parker's station, as far back as April—and before the ng by Hargraves—may be said to have aroused attention to the auriferous deposits e colony. The first report was made by a Mr. Campbell, who, in company with a tter, picked up pieces of gold in quartz at Clunes, in March, 1850; but the owner e station, Donald Cameron, apprehensive of injury to his "run" following the an- ncement, concealed the discovery. On June 10, 1851, Mr. Campbell informed Mr. am, M.L.C., that within a radius of 15 miles of Burn Bank, on another station run, d procured gold. Dr. Bruhn dispatched his specimens to the Gold Discovery Com- e, which, however, were not received until June 30. Michell's party exhibited imens on July 5, which they had obtained at Anderson's Creek, Yarra ranges, and was also made known at Geelong on the same day, July 5; and Hiscock (who for some time instituted a search for gold in his neighbourhood) found at Buninyong prelude to Ballarat, on Aug. 8. To each of these gentlemen (with the exception of Bruhn, who received 560*l.*) the Government awarded 1000*l.* The earliest disclo- of the mineral wealth of Forest Creek is due to a shepherd, named Christopher es, who was employed on Barker's station. It appears that Peters found alluvial at Specimen Gully on July 20, and immediately associated with him three others, in the same employ, to aid him in reaping the benefit of his exciting discovery. y continued to work the ground with secresy and success during the following ch. On Sept. 1, having become uneasy as to the consequences which might accrue their unauthorised appropriation of the produce, one of the men, on behalf of the y, "to prevent them getting into trouble," caused to be published in a Melbourne nal an announcement of the situation of their workings. This notice, ambiguously ded, and rendered still more so by the locality being described as "at Western Port," duced to the world the treasures of Mount Alexander. The richness and extent of two last-named fields soon withdrew attention from the minor discoveries of Es- d, Michell, and others.

The differences which at an early period existed between the authorities and the miners Ballarat, and which terminated in the painful affair of the Eureka Stockade, parti- suspended operations on a favourite ground, but a short interval (improved by an cial administration less obstructive) sufficed to witness its re-occupation. Thence- the future of Ballarat was to be scarcely less brilliant than the experience of old nadian" times. Looking at the successful results which have crowned the system malgamation; at the extraordinary prolific character of the ground at great depths second and even a third "bottom" having been penetrated—it would be difficult to dict to what eminence this district may not yet attain as a seat of mining enterprise. was not until the opening up of Tarrangower, about the end of 1853, that any large ration marked a decline in the importance of Mount Alexander, hitherto the great rs of attraction. The successful explorations of Capt. Mechosk and others, how- , drew away considerable numbers, and from this period a succession of promising ushes" followed each other at brief intervals. Porcupine Flat was barely occupied re the wealth of the Trans-Lodden gold fields was disclosed, and the "sweet Vale Avoca" suddenly became the cynosure to which all eyes were directed. It again, ever, was deserted for the auriferous spurs and flats which were found to intersect wide sheep run of Norman Simson—the present Maryborough field. This discovery followed by the opening up of the Creswick, Blackwood, Alma, Inkerman, and the y Creek diggings, during which period upwards of three-fourths of the mining had crossed the Lodden and Bet-Bet, and had extended even to the Wimmera.† oon afterwards glowing reports came from across the Pacific, and the diggers in large bers rapidly abandoned the placers of Victoria for the alleged discoveries in Peru. arore for new fields had now set in, and successive stampedes to the Rocky River other places of New South Wales tended to a considerable thinning of the popula- . It was at this juncture that the importance of the Dunolly district became known, wide leads of which, closely followed by the opening up of Chinaman's Flat, and in ensuing winter of the extensive grounds of Ararat and Pleasant Creek, for some time ded profitable employment to the miners.‡ But with the great western fields the veries appear to have terminated. A long period of inactivity followed, and migra- y proclivities became general. Towards the close of the winter of this year (1858) rts of the discovery of gold at Port Curtis, on the eastern coast, were circulated. se were listened to with eagerness by the miners, and the reported "finds" soon med the most attractive dimensions—pennyweights soon became ounces, ounces nds, and so on even up to hundredweights. In a few weeks, notwithstanding the nce of any reliable information as to the value of the Canoona field, an exodus from colony took place, only equalled in number by that of a more recent date to New land. A magnificent country was explored, teeming with great natural wealth in shape of a fertile soil, but possessing little auriferous value, and, but for the prompt- of the Victorian Government, the "rush" to Port Curtis must have had a termi- on little less disastrous than that which attended the ill-advised expedition to Callao. he depression of the mining interest in Victoria was, however, but temporary. ive months after the invasion of the Wimmera district fresh discoveries were made ack Creek, Amherst, and the large area of productive ground opened up by the ot rush rapidly absorbed the unemployed. About this period, too, attention was actively directed to the development of the quartz veins of the colony (hitherto ected to the rudest method of operation), leading to the gradual discovery of the erous rich gold-bearing lodes distributed throughout the older diggings. The rush ack Creek was followed up by the opening up of the Lamplough, and henceforward almost uninterrupted succession of new fields greeted the miner. Old and New lewood, on the borders of the Murray Scrub, and Moonambel and Redbank, in the rt of the Pyrenees (the first celebrated for the value and number of its reefs) were ely followed by a considerable extension of the Burnt Creek diggings, the head quar- s of the Chinese in the Maryborough district. Then came the more recent disco- ies of Barkly, Landsborough, Navarre, Blue Mountain, Majorca, and Sebastian, the st and most valuable being the Raywood field, in the Bendigo district.§

The management of the gold fields of the colony is placed under a Mining Department, head of which has a seat in the Legislative Assembly and also in the Cabinet. The ld fields are divided into six districts (Ballarat, Sandhurst, Castlemaine, Maryborough, chworth, and Ararat), each of which contains numerous divisions, and has a Mining rd and a Court of Mines. The Mining Board consists of 10 members, elected from different divisions of the district, whose functions are to make bye-laws to regulate working of the gold mines in its district. These bye-laws are carried into effect by the rdens, who are appointed by the Government to administer the general affairs of the d fields. The Warden adjudicates in cases of mining disputes; from him there is an eal to the Court of Mines. This is an equity court, presided over by a judge ap- nted for the purpose, called Judge of the Court of Mines, and who is also generally ounty Court judge. Mining Surveyors are also appointed by Government, whose ies are to receive applications for and register prospecting claims; to assist in the mation of streets, and the laying out of business sites on new fields; to collect statis- showing the mining population, the machinery in use, &c.; to survey and prepare pe of the mines; and generally to report to Government every month on all questions ating to mining in their respective divisions. From the granting of licenses to dig on pt. 1, 1851, to the end of the year 1863, the mines of Victoria have produced gold to value of nearly 130 millions sterling, exported in the following yearly quantities:—

Year.	Ascertained produce.‖			Value, at 80s. per oz.
1851	Ozs. 145,146	14	16	£ 580,587
1852	2,724,933	5	1	10,899,733
1853	3,150,020	14	16	12,600,083
1854	2,392,065	9	19	9,568,262
1855	2,793,065	8	16	11,172,261
1856	2,985,695	17	0	11,942,783
1857	2,761,528	8	0	11,046,113
1858	2,528,187	19	12	10,112,752
1859	2,280,675	13	0	9,122,702
1860	2,156,660	10	0	8,626,642
1861	2,244,452	0	0	8,977,808
1862	1,817,408	0	0	7,269,632
1863	1,634,377	0	0	6,537,508

t will be seen from this table, that whilst the returns of the first six years averaged over 11¼ millions sterling, those of the latter six years, terminating with 1863, averaged but 8½ millions annually—*prima facie* evidence in favour of the supposition of a rapid deterioration of the gold fields.

In order, however to arrive at any practical conclusions on this subject it will be necessary to review the experience of the past few years. The yield of gold reached its maximum with the opening up of Dunolly and Ararat (1856-7), at which time also the greatest number of European miners were engaged; but with the decline of the advantages held out during the earlier years (the last great rushes in point of yield and extent being the Wimmera field) a gradual decrease took place. Large numbers availed themselves of opportunities to quit digging for more congenial pursuits, generally those remaining who were best fitted for the labour, and to whom gold mining became a regular occupation. Nor must the fluctuation in the numbers of this latter class, principally due to the attractions of other fields, be overlooked. The late rushes to New South Wales and New Zealand, for instance, present a more satisfactory explanation of the decline of the gold crops of Victoria than is to be found either in the assumed impoverishment of the diggings, or in the ordinary displacement of mining labour. Nearly one-fourth of the European miners (chiefly alluvial¶) have been thus withdrawn in the course of the past few years. It may also be stated that at no time subsequent to 1858-9 has there been an accession of fresh labour to the mining population of sufficient importance to materially influence the amount of yield. The partial replacement of the numbers withdrawn has been maintained principally by a steady reflux of the out-going element. These repeated migrations to remote and, as experience has invariably shown, inferior fields are highly characteristic of the gold-seeking class, to whom, perhaps more than to any other, "distance lends enchantment to the view."

Far from any failure of auriferous indications in Victoria, fresh discoveries continue to be made, while the gold-bearing rocks present themselves as permanent sources of supply. The annexed table will best illustrate the strength of the actual mining population during the past 12 years:—

Date.	Adults, including Chinese.**	Total population.
December, 1851	19,000	20,300
" 1852	33,000	44,400
" 1853	49,600	75,626
" 1854	62,250	92,853
" 1855	97,650	146,042
" 1856	110,500	181,000
" 1857	118,563	196,084
" 1858	126,685	205,320
" 1859	125,764	201,422
" 1860	118,562	224,977
" 1861	110,226	240,751
" 1862	99,742	234,202
" 1863	93,954	227,653

Although the richest deposits hitherto found in Victoria were struck in the grounds first opened (and which has strengthened the impression of the early exhaustion of our gold fields), it may fairly be questioned whether the real value of the later discoveries has been arrived at by the results obtained. For the purpose of illustration we may compare the experience of this former period (at which time but little knowledge was possessed of the resources of the colony) with that of a later date. In the case of Mount Alexander, for instance, where the best yields were supposed to have been obtained with the least amount of labour, its development was gradual and continuous, extending over a period of two years or more.

Dating from the Trans-Loddon discoveries in 1854, the numerous fields successively opened (with, perhaps, one or two exceptions) have been "invaded" by a much larger body of miners than that which at any period thronged to those just quoted. The duration of a large rush rarely exceeding four or five months, a dispersion of the greater number will almost as rapidly ensue, the unsuccessful (necessarily a large proportion) betaking themselves to pool, but still remunerative fields—or, in mining parlance, "tucker" diggings—where they tide over the interval until the occurrence of another rush. Thus the large extent of country surrounding the productive centre is surrendered to what is really but a superficial examination; the practice of "shepherding," as pursued of late years, often preventing the development of what otherwise might prove to be rich and paying ground.†† It will be obvious, therefore, that the test of large areas, by operations thus systematically circumscribed, is utterly inadequate to determine their auriferous value, while the diversion of labour which necessarily attends a succession of "rushes," often widely separated, such as have occured during the past few years, must operate prejudicially to the character of the yield.‡‡

COST-BOOK MINES, MERCHANTS SUING DEFAULTERS, AND THE COURT OF CHANCERY.—The judgment given by Vice-Chancellor Kindersley in the case of Cox *v.* Stephens is of much importance to the mining interest generally, both as regards the suing of adventurers by merchants and with respect to the jurisdiction of the Stannaries Court. The bill was filed by Mr. Cox, a holder of twenty shares in South Providence Mine, the defendants being the holders of the remaining shares, except 550, which had been vested in a person named Giles, since deceased, and a question was made whether his representatives were necessary parties; and his Honour considering that they were, they were brought before the Court. There was also another defendant, named Martin, who was not a shareholder, but who claimed to be a creditor of the company. Martin having brought an action against the plaintiff in respect of a debt alleged to be due to him from the company, the bill sought to restrain that action on the ground of collusion, and that the true object was to compel the plaintiff to pay calls, and also to restrain three other defendants from exciting and encouraging Martin to take such proceedings, and for a dissolution and winding-up of the affairs. The Vice-Chancellor said that there was no question that if directors of a company instigated a creditor to bring an action against a particular shareholder as a means to compel him to pay calls, and bear the burdens which no doubt he ought to bear, the Court would not allow that. Taylor *v.* Hughes was the earliest case on that point, and the question was whether on the evidence adduced this case came within that principle. His Lordship then referred to the evidence. It might be observed that there was nothing more just than that if a creditor got information that there were shareholders whom he might sue, A having paid his calls and B not having done so, he should rather proceed against B than A. Supposing the directors were applied to to give that information, and they gave it, that would not justify the interference of this Court. The evidence did not support the case, and it came to this, the plaintiff without any reason, and at his own peril, thought fit to bring the party here and ask for this injunction; there was not sufficient ground for it, and, therefore, so far the bill must be dismissed with costs, including the costs of the motion. As to the dissolution and consequent accounts, it had been said that the plaintiff ought to have gone to the Stannaries Court; but though recent Acts of Parliament had extended that jurisdiction, there was no ground for such contention. It was also said that no bill should have been filed, but proceedings taken for winding-up. It had been enacted that a party coming within the jurisdiction of the Stannaries Court, if he wished to wind up a company, must obtain leave from the Stannaries Court, but His Lordship's experience was that proceedings under a winding-up were as expensive, if not more so, than if the other course was taken. The principle of the Winding-up Act was, that were the parties were so numerous that an ordinary suit could not bring them before the Court, a machinery might thus be furnished. The plaintiff was entitled to come here and have the partnership dissolved, and the affairs wound-up. His Lordship concluded by directing accounts and enquiries in detail. In the Journal of next week we shall publish the judgment *in extenso*.

THE MARAZION DISTRICT.—From the year 1740 to 1800 the principal mines in this district were carried on by a company of gentlemen mostly residing in London and the North and West of England, locally styled the Quakers Company, but who were not only largely connected with the working of copper mines in Cornwall, but also lead mines in Wales, and were extensively engaged in the smelting of copper and lead ores. The first copper-smelting works were at Hayle, and styled the Cornish Copper Company, but eventually these works were transferred to Neath, in South Wales. This company wrought extensive mines also in the Halkin Mountain, in Flintshire, North Wales. The same range of mines were subsequently wrought by the late Lord Westminster. One of these mines alone is said to have paid in dividends from 50,000*l.* to 90,000*l.* a year for about 20 years. These premises in Cornwall have since been occupied by Messrs. Sandys, Vivian, and Co., one of the largest firms as steam-engine manufacturers and merchants in Cornwall or the West of England. The principal mines in Cornwall wrought by this company were the North Downs Mine, the Hallamanning, Penberthy Crofts, Trevarthen Downs, and the Old Owen Vean Mines. These mines are reported to have been very rich and profitable. The whole of these copper mines, except the North Downs Mines, were in the Marazion district, and gave employment to thousands of persons for upwards of half a century. The principal manager of these extensive mines in Cornwall was Thomas Gundry, of Goldsithney, a man of great experience and standing in the county, who departed this life in the year 1808, aged 85 years, and who was one of the first persons in Cornwall to hold out the hand of friendship to that celebrated man John Wesley, and convert one of his barns at Goldsithney into a chapel for that connection. It is said that previous to Mr. Gundry inviting the Rev. Mr. Wesley to his house that celebrated divine lived on blackberries on St. Hilary Downs for several days. Thomas Gundry left four sons, who became extensive merchants, bankers, and mining proprietors, and who discovered some of the richest and most profitable mines in Cornwall, such as Wheal Friendship, Wheal Speedwell, Wheal Virgin, Wheal Vor, Wheal Neptune, and, lastly, Wheal Rodney—a mine situate between the Old Wheal Fortune and Tolvadden Mine. Wheal Rodney was discovered about the year 1823, at the depth from the surface of about 8 or 9 fms. only, by means of a shallow adit or level. The proprietors were Thomas, James, and William Gundry, and a few of their friends. The outlay was 5*l.* per share, and shares in a few months were eagerly sought after by capitalists at 400*l.* per share. At first the ore course—the yellow sulphuret of copper—was small, but at the 90 fm. level it was from 6 to 7 ft. in width—solid ore. This mine was subsequently wrought by the Marazion Mines Company, with other mines, under the able management of Captain William Blight, of Marazion, for many years, and returned immense quantities of copper and tin ores.

SALE OF MINE SHARES BY PUBLIC AUCTON.—Mr. T. P. Thomas sold by public auction, at Garraway's, on Thursday, the following mine shares:—20 Wheal Hearle, at 2*s.* 6*d.*; 20 ditto, 3*s.*; 10 Tolvadden, 1*l.* 5*s.*; 20 North Treskerby, 2*l.* 2*s.* 6*d.*; 25 Charlotte United, 3*s.*; 25 Guriyn, 11*s.* 6*d.*; 6 Stray Park, 28*l.* 15*s.*; 10 Bedford United, 2*l.* 15*s.*; 1 Great Wheal Vor, 38*l.* 15*s.*; 10 East Lovell, 19*l.* 10*s.*; 1 Wheal Ludcott, 2*l.* 9*s.*; 10 New Treleigh, 4*s.*; 20 South Condurrow, 17*s.* 6*d.*; 10 Great Retallack, 8*s.* 6*d.*; 20 ditto, 8*s.*; 232 Merilyn, 1*s.*; 20 South Carn Brea, 9*s.*; and 145 Vale of Towy, 4*s.* 6*d.* The Burren Mine was withdrawn.

THE VENTILATION OF MINES BY MECHANICAL MEANS.

[Notes from a Lecture by Prof. W. W. SMYTH, Royal School of Mines, London.]

In the last lecture, we have seen that in dealing with air currents in the ventilation of mines there are several points to be considered, apart from the theoretical question of the best means of producing the current, and how great precaution is necessary to prevent any loss of air through a long series of workings. A multiplicity of doors for this reason is very objectionable, since if the boys who duty it is to keep them constantly closed neglect their charge for a few minutes, the lives of all the miners in the colliery become endangered. For example, in the great Lund Hill Colliery at the time of the great explosion there were more than 50 doors in the mine; we may, however, mention that since that time the manager has succeeded in altering the whole ventilation of the mine, and has in this way simplified the currents. Again, we have seen how desirable it is to divide the currents, so that if an explosion takes place in one part of the workings the men may escape into the fresh air-ways, even if all the doors be blown away. Other matters we have seen are important in treating of the subject of ventilation generally, such as the subdivision of large areas of coal fields into departments, and the supplying of these departments with two distinct shafts and air-ways. We may here notice an ingenious machine, by a Mr. Robinson, of which a model was exhibited in the last Exhibition; he called it the isolated ventilating system, and although it introduced an excellent idea, yet it was merely the carrying out of the principle of departments to absurd lengths; in fact, the scheme may be said to be unpractical, as well as impracticable. Mr. Robinson's idea was to subdivide the working area into very small fields, and to supply each with two shafts, and for the outcast shaft to substitute pipes, which would be most objectionable.

Now, in metallic mining districts the ventilation is accomplished by applying the easier modes already described, and since the positions of this class of mines vary so immensely, it would only be repeating the old story to consider each case separately. We have seen how these metallic mines possess an advantage over mines in bedded deposits, as they are generally placed in sloping ground, admitting of adit levels and other advantages in effecting proper ventilation from natural causes. There are, however, circumstances, as when the depth of the workings is great, when the natural ventilation becomes dead, and some simple artificial aids are called into requisition. The prevailing winds in metallic mines, where there are adit levels in sloping ground, materially affect the ventilation, and especially do we see instances of this in the Cornish mines.

Hitherto we have said but little about the atmospheric influence on the subject of ventilation. George Stephenson was the first to point out the great fact that the ventilating currents in a mine were seriously affected by the barometrical and thermometrical state of the atmosphere, and he discovered the great fact that when the barometer underground was low the temperature was also lowered, that when the barometer was low the amount of noxious gas increased immensely, and that at such times a larger quantity of fire-damp exuded from the coal. These truths he arrived at in the days when he worked as a practical engineman, and when he conducted his experiments with the safety-lamp, by means of a jet of gas obtained from a blower, which he collected and burnt from a tube; his supply of gas was always more abundant when the barometrical column was low. Again, the thermometrical condition of the atmosphere is also very important, on account of the difference it makes between the two columns of air by which you produce ventilation.

To return to metallic mines, we find there are always parts in such that require mechanical ventilation. Thus, when driving a moderate sized level you get away from the shaft, the air gradually becomes dead, and the necessity arises for adopting some artificial ventilation. The distance you may drive without its aid varies greatly according to the nature of the country, for in some cases we can go 60 fms., or others 150 fms., before we need it. Some cases of long distances are very surprising, as, for example, in the Levant Mine, where a level has been driven stretching out under the sea for 100 fathoms, without any need of artificial ventilation. Wherever there are a number of shafts in a mine, there you may reckon on a natural ventilation down to great depths, but in close ends the air will become dead, and, in order to improve it, a number of little machines are in use in metallic mines, such as the Hertz air-pump (peculiarly applicable where there are pump-rods near); failing that, a ventilating wheel, or common fan, will answer well, worked either by a boy, man, or a water-wheel. Now, one of the most difficult places to ventilate in the world is the bottom of the United Mines of St. Day (now called the Clifford Amalgamated Mines), where not only is the temperature high from the great depth of the mine, but especially so from there being a spring of warm water at the extreme bottom; in fact, the temperature at the bottom is often 115° Fahr., and so hot that the men can only work when buckets of water are continually thrown over them. In this particular instance, they have one great advantage in having a deep shaft, with a strong tendency to become an upcast shaft. The air naturally strives to get at this deep shaft, and they are compelled to put in pipes to conduct it to the ends being worked. Undoubtedly this is the proper method to be adopted, provided the pipes are of sufficient size. For the purpose of ventilating a mass of works in a metalliferous mine, where there are two shafts communicating with one another through a long series of workings, the mode most generally applicable will be to carry the current directly to the bottom of the deep shaft, and then, by means of doors and stops, cause it to ascend through the winzes, and in this way it will be easy to ventilate the foul parts of the mine. We should, above all, endeavour to confine the air to certain channels, to prevent its fritting itself away in shallow levels.

Now, let us turn to the state of things from a theoretical point of view, and let us take the case of two shafts in a bedded deposit, and, theoretically considered, the case will be almost identical in all mines. If we now compare the difference between two mines, each having two shafts, in a bedded deposit, we shall find the ventilation in the case of the mine worked on the dip will be much more easy than where the mine is worked on the rise. The natural tendency of air in all underground workings will be to ascend the shorter shaft; it has, however, been established that the advantages are very considerable of making the deeper shaft the upcast. We must now devote a few words to the theoretical principles of ventilation, and Mariotte's laws theron. Of these we have, first—"That the volume of air of a given weight is inversely proportional to the pressure upon it, and hence the weight or density varies directly as the pressure." Now, by this law, in considering the resistance of a long winding passage, it is very important that the resistance be balanced, or rather overcome, by the pressure; the resistance, of course, varying with the length of the air-way or gallery; the resistance, however, must vary in action as the square of the velocity of the current. This is a very important point, for if we have two cases, one where the current travels 3 feet per second, another where it travels 6 feet, in the first case the resistance will be represented by 9, in the other by 36.

Thirdly, the resistance varies inversely as the sectional area of the air-way. Another point of considerable moment, as bearing on the subject of splitting air currents in mines, is that the volumes of velocities in airways or galleries differing only in length are conversely as the square roots of their lengths. Thus, in the case of one air-way being four times the length of another, we shall have their volume and velocities as V 4 : V 1. With respect to the modes of measuring or gauging the quantity of air that passes through a gallery, water-gauges are sometimes used, though they are very imperfect and unsatisfactory, as, from their principle of action, they do not so much measure the quantity of air that passes as the difference between the pressure of the two columns, and are useful, therefore, only to show the drag, or pull, on one side over the other. The old mode of measuring the exact amount of air passing at any time, is to take the area of the level through which it passes, then to measure off a certain distance along the air-road, and to explode a small quantity of gunpowder at this point, and, by means of a second's watch, to observe how long the smoke from the powder takes to reach the other point. Thus, if the area be 30 feet, and the velocity 3 feet per second, we get a result of 5400 cubic feet of air passing per minute. The most satisfactory mode, however, is to use an anemometer, of which there are various forms, that invented by Mr. Dickinson being the most simple. A superior form of anemometer is that of Mr. Biram, in which the force of the current is measured by the pressure it exerts on a series of vanes placed on a wheel, which is attached to machinery, by which the number of revolutions marks a definite velocity in the current, and by which the velocity may be read off in feet.

We have now, in conclusion, to allude to the modes of extinguishing colliery fires, which is always a matter of great difficulty, from the rapidity with which the fire spreads. In undertaking this most difficult work, above all things be as rapid as possible in whatever attempt you make, for if the fire once gains ground to overcome it is almost impossible. A good plan, when the fire has gained much ground, is to seal hermetically both shafts. If, however, attacked in its earliest stages it may be possible to

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* Within the past twelve years the population of the colony of Victoria has increased fourfold.

† During the Maryborough rush several parties prosecuted a search for gold in the district of Lake Omeo, in the Mitta-Mitta ranges, and some of the northernmost spurs of Gipps land, without any important results.

‡ A new field of some pretensions (Indigo) was also opened this year in the Ovens district, but was taken up principally by residents of the adjoining divisions to Beechworth, and by persons from over the border.

§ A number of minor fields were also opened, but call for no special notice. The older gold fields, such as Korong, McIntyres, Kingower, Rushworth, McIvor, Korong Mollagul, Burnt and Jones's Creeks, were opened in 1852-3. There are in all upwards of 80 distinct "diggings" in Victoria.

‖ The amount of gold brought by hand from the gold fields to Melbourne, and taken away in passenger ships, without being passed through the Customs, previous to the imposition of the export duty in 1855, has been estimated at 2,000,000 ozs. With this addition to the ascertained export of the precious metal we have a grand total of 126,500,000*l.* as the produce of the Victorian fields, or an average annual yield of better than 10,500,000*l.*

¶ It is estimated that 70 per cent. of the total yield of gold is derived from alluvial mining.

** The numerical strength of the Chinese in Victoria may be stated at one-fourth of the total mining population. Their immigration into the colony commenced in 1853, and in the following year there were about 2000 located therein; this number during the next three years increased to 30,000; in 1858 their numbers throughout the year averaged 35,000; in 1859, 42,000; and in 1860 again fell to 35,000; but the several attractions of Lambing Flat and Burrandong, in New South Wales, drew away 10,000 or 11,000 during this and the following years, leaving the population throughout the past two years, in round numbers, at 24,000.

†† The important localities of Dunolly, Creswick, and Talbot, together with the Burnt and Fiery Creek diggings, had been at one time more or less abandoned, after a partial and hurried trial, while as evidence of the wealth which yet lies untouched in the midst of diggings rushed long ago, it is only necessary to refer to the recent discoveries at Raywood (Bendigo) and Majorca (Maryborough).

‡‡ Looking at the recent discoveries in different parts of the colony, and the steady increase in the number of miners returning from New Zealand, there is a reasonable probability that this year's produce of the gold fields will exhibit a considerable improvement upon that of later years respectively.

carry the ignited matter out of the mine. Mr. Goldsworthy Gurney, it was thought, had discovered a perfect plan of putting out colliery fires by pouring in a large quantity of carbonic acid gas. The principle is, of course, good, but the practical utility of the notion doubtful. In some cases, where the fire increases rapidly, it is absolutely necessary to pour in a large quantity of water to extinguish it. It may in some cases be possible to divide the ignited part of a colliery from the rest of the mine by a solid wall of some inflammable material.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market was more than ordinarily dull during the early part of the week, but has since become more active, and a fair amount of business appears to have been transacted, and at present is of a more buoyant and satisfactory character. The greater portion of the mines in the several mining districts of the country are looking well, and present appearances of general improvement, whether it be in the production of tin, copper, or lead ores; consequently, there is very little apprehension of any very material decline in the market value of the mines chiefly dealt in, unless it be through market operations, against which there is no protection. The usual fortnightly account took place on Tuesday (which was not heavy), and passed off satisfactorily.

WHEAL SETONS have been in fair demand, and shares changed hands at fair market prices.—WEST SETONS are rather quiet at minimum rates.—NANGILES have shared in the transactions of the week, without any material change in price.—CLIFFORDS have been in good demand, and prices have advanced.—EAST BASSETS have been enquired for at fair market prices.—EAST CARN BREAS have been rather largely dealt in, and have considerably advanced.—STRAY PARKS are in better request.—TINCROFT shares continue quiet at minimum rates.—WHEAL GRENVILLES have receded, but show a strong tendency to improve.—EAST GRENVILLES have been in great demand, and extensively dealt in at higher rates, but left off weaker.—GREAT LAXEYS are eagerly sought for, and fairly maintain their recent rise.—NORTH TRESKERBYS are sought for at nominal figures.—WHEAL CROFTY and NORTH CROFTY have been dealt in at lower rates.—ST. DAY UNITED shares are rather more in demand, and likely to have an upward movement.—BOSCAWENS are sought for at present prices, with a tendency to advance.—EAST ROSEWARNES have been done at varied prices.—GREAT WHEAL BUSY and HALLEN BEAGLE shares continue firm, and freely dealt in at fair market prices.

WEST CHIVERTON and CHIVERTON find buyers at nominal prices.—EAST LOVELLS have shared largely in the transactions of the week; and, although quoted wide, are bought at fair market prices.—GREAT EAST LOVELLS continue in request, and are picked up at fair rates.—SITHNEY AND CARNMEALS are sought for at advanced prices. The mine is reported as looking remarkably well.—SITHNEY WHEAL METAL and WENTWORTH CONSOLS are also in request.—BASSET AND GRYLLS and WENDRON CONSOLS are offered at lower rates.—NEW ROSEWARNES have been freely dealt in, at improved rates.—PROVIDENCE and MARGARET are offered at lower prices.—EAST CARADONS have fluctuated, but leftoff firmer.—MARKE VALLEYS have receded, and more freely offered.—WEST SHARP TORS are in better request, and done at higher rates.—WEST CARADON and GLASGOW CARADON continue heavy.—GONAMENA and HERODSFOOT are firm, at present prices.—MARY ANNS are in good request, at higher figures.—EAST RUSSELLS are offered at lower rates.—WHEAL CREBORS have been in good demand, and rather largely dealt in, but prices have fluctuated.—NORTH ROBERTS are in request, at nominal prices.

EAST CARADON.—The counter lode, in the 60 east, is producing saving work. The 70 east is worth 15*l.* per fathom. The 80 east is worth fully 25*l.* per fathom. The 80 west is worth 8*l.* per fathom.—New Lode: The 60 west is worth 5*l.* per fathom; 70 east, 5*l.* per fathom; 80 west, producing saving work.—South Lode: The 70 east is worth 8*l.* per fathom; and the 70 west, 5*l.* per fathom.

WHEAL CREBOR.—An improvement has taken place in the winze sinking under the 84 east, yielding 5 tons of ore per fm., worth 25*l.* per fm., and still improving; this discovery is looked upon as very important, inasmuch as the winze is in advance of the 96 end. The 84 end is yielding 2 tons, and the stope above 2½ tons per fm. The 96 east is looking very promising for improvement. On the whole, the mine is represented as never looking more encouraging than at the present time.

PROSPER AND MICHELL UNITED.—These mines are situated in the parish of Lanivet, near Bodmin, and consist of an extensive grant, chiefly a hill, or rising ground, with tin disseminated throughout. The system adopted for working the property is by quarrying, the whole of the tinstuff being raised and carted to the stamps. The stamping-power comprises five water-wheels, driving 112 heads of stamps, with an abundant supply of water from a never-failing river; in fact, any amount of machinery can be brought into operation for all purposes of stamping and dressing the tinstuff, and with little expense 100 heads more can and will be added, to increase the returns. Captain Henry James, of Redruth, who recently inspected the mines, states that "in Michell sett alone millions of tons can be taken away, by simply quarrying into the side of the hill," and "the tin-bearing rock is all but inexhaustible." The tin is thinly disseminated; but the quantity operated upon gives the profit. In six months they carted to the stamps 13,016 tons, which produced 22,445 lbs., or upwards of 10 tons, which gives a profit of about 180*l.* for that period; but by increasing the stamping-power that amount can be doubled. The mines are divided into 1024 shares, upon which about 35s. per share has been paid, whilst a great deal of the machinery has been erected out of the profits. The property is held by private parties, and worked economically and profitably.

EAST WHEAL GRENVILLE is reported to have very much improved, especially in the 65 west. For the last few fathoms driving a great change has taken place in the nature of the lode, and now they have a lode yielding, full 7 tons of ore per fm., of average quality, and likely to improve in depth, as it enlarges in going down. The shaft end 65 east are also looking better.

WHEAL CROFTY.—The prospects of this mine have considerably improved, and from its local position, in contiguity with permanent and productive mines, and geological character generally, there is every reason to anticipate important results as the present operations are being carried out. They have now cut a very promising lode in the 55 north, 18 in. wide, with good stones of ore, and indications of further improvement on development. They have also a good branch of ore in the 24, west of the cross-course, which is considered important, being altogether a new feature.

WHEAL GRENVILLE continues to open up remarkably well, and all the main points of operation are of the same value as last reported. Some disappointment has been felt in the cutting of the lode in the 120, which has not proved so productive as anticipated, but there is this encouragement, that as the upper levels were of a similar nature as the present point of intersection, and opened out valuable on being developed, there is every reason to expect great results in course of driving east and west, which a few days only will probably disclose.

WEST BASSET.—The lode in Thomas's shaft continues large and highly promising; it is now 7 ft. wide, carrying large stones of rich ore, and, from its general character, there is reason to calculate on an early and important discovery.

WEST CHIVERTON continues to open out remarkably well, several improvements have taken place since last noticed. The 80 west, on Williams's lode, is reported worth 100*l.* per fathom: 100 tons of lead were sold on Saturday last, realising 22*l.* 15s. 6d. per ton.

At COOK'S KITCHEN the lode in the sump-shaft is worth full 80*l.* per fathom, with every appearance of a further improvement. In about two months Duncan's lode (which is so productive in Tincroft) will be intersected, and from the value and character of the lode the cutting of the same is looked forward to with considerable interest.—WHEAL SETON has generally improved, and the mine is reported at the present time to be looking better than on any previous occasion.—CARN BREA is reported to have considerably improved, especially in depth, where the lodes are becoming productive and profitable. Dividends are expected to be resumed this month.

EAST CARN BREA has very considerably improved, and is now opening up most cheeringly. The discovery of a new lode in the 26 cross-cut is of great importance. The 26 east is yielding 6 tons per fathom, and west 4 tons. The stope in the back of the 60 is worth 7 tons per fathom. The 30, east of western shaft, is worth 3 tons per fathom, and west 2 tons. There are several other places looking more than ordinarily well.

CLIFFORD continues to yield enormous quantities of ore from the several levels, the developments by which are opening out vast reserves, and it is stated that at no former period has the mine been so productive.—At EAST POOL the four bottom levels are in valuable courses of tin, and as soon as the new and additional stamps, &c., are in operation, this mine will be scarcely second to any in the district for returns.—WHEAL BASSET is making considerable improvements, and laying open fresh and extensive runs of tin ground. The mine will soon be in a position to return 25 tons of tin per month.

EAST LOVELL.—The lode at the diagonal shaft continues to maintain its value, and is still worth 170*l.* per fm. The lode at the shaft sinking below the 20, on the south lode, has considerably improved, and, in fact, every other place is looking equally as well as last week.—GREAT EAST LOVELL: The operations are progressing satisfactorily, and the shaft on the north lode going down rapidly.

WHEAL GRYLLS is reported to have improved in two or three important points, especially in the 40, east of Annie's shaft, where they have a very good discovery.—EAST WHEAL VOR: Arrangements are making for the immediate erection of an engine on the shaft sinking on Wheal Metal lode, which is down 6 fathoms, where they have a rich bunch of tin, and improving in sinking.—SOUTH WHEAL LOVELL: Among the numerous and highly-valuable undertakings which have recently been brought before the public in this vast mineralised district, perhaps none exceeds in value and importance, or more worthy of development, than the above. Situated immediately to the south of East Lovell, traversed by several well-known and productive lodes, possessing all the elements of a permanent and paying mine, and advocated by some of our most experienced and practical agents, are features that almost warrant the success of the enterprise, but whether the company will be a public or private one is not finally decided; should the former be adopted, an opportunity will be afforded those who are on the alert by an early application for shares. JAMES LANE.

From Mr. EDWARD COOKE:—The market has been more active than for some time past, and there are evident signs of a favourable reaction in the price of good mining property. The price of tin ore has slightly advanced. The annual sale of the Banca or Dutch Government tin, which always influences the price of English produce, is now pending. When this shall have been concluded no doubt the smelters will see the policy of making a further rise in the price of the raw material to the various mining companies. To such mines as Great Wheal Vor, Tincroft, Carn Brea, Dolcoath, &c., a rise of (say) 4*l.* per ton on tin ore is of immense importance, producing, as they do, some 50 to 60 tons monthly. On the whole, there are favourable indications of a more prosperous state of things in the mining world at no distant date; and if a good selection were now made of a few of the most promising mines to invest in, while they are comparatively low in price, the result would be most favourable to the investor. As a rule, however, the public generally do not buy on a flat market, although it is policy to do so, in order, if they are disposed, to realise when the reaction comes that invariably follows a period of dulness. It would be thought invidious to mention the names of mines that should be bought into now, but there are several that would pay well for an outlay in them. GREAT WHEAL VOR is gradually increasing its monthly returns, and the shareholders may congratulate themselves on having in this mine a valuable and lasting property. At EAST WHEAL VOR the late discovery on the Metal lode promises to become highly important. The lode, according to the manager's advices, is already producing some rich work for tin, and may, probably, result in one of those large deposits for which this Metal lode is celebrated in Great Wheal Vor. The 6000*l.* capital has been fully subscribed. This, together with the advantage of having steam-engines, dressing-floors, and stamps, all complete and paid for, entirely independent of the above capital, besides shafts sunk and other available work done, estimated to have cost some 10,000*l.*, induce me to believe that ere the capital is expended East Wheal Vor will become a highly productive mine.—EAST WHEAL LOVELL: The report and statement of accounts, as presented at the meeting on the 25th, is now circulated among the shareholders, and the proceedings of the meeting will, no doubt, be fully reported in the Journal of this day. The public will now be enabled to judge how far the detractors of this mine have been justified in their advice and sinister insinuations. I do not condemn the principle of "bearing" shares, as it is termed, but I do condemn in the strongest possible sense the unscrupulous and unprincipled practice resorted to by those who have chosen to adopt this system of business, in order to buy back shares they have oversold. With regard to East Lovell, I am fully aware that the most strenuous efforts have been made to create doubt and mistrust in the minds of the shareholders ever since the shares were at 7*l.* each, as to the real value of their property. At present East Lovell is a very rich mine, and, according to the opinion and testimony of practical agents, who are thoroughly acquainted with the district, is likely to become a splendid property; and all that may be said by interested parties for or against it cannot alter its true position. The mine is now selling at a less price than some mines that have never yet paid a dividend; and it is quite problematical if they ever will. Mining property is well known to be of a speculative character; and, while it is both an honourable and ofttimes a lucrative pursuit to those who invest in it, yet it requires every legitimate support that can be given to it in order to encourage the investment of the capital necessary for its development, instead of which it is to be regretted that efforts are frequently made to cause groundless distrust in the minds of the public by those from whom they expect to receive disinterested advice. This conduct will, however, sooner or later effect its own cure, and probably recoil upon the authors of it. In the meantime, legitimate enterprise will prosper, notwithstanding the short-sighted policy adopted by certain individuals (unmeaningly let us hope) to depreciate it by every means in their power. I was at GREAT EAST LOVELL on the 26th ult., and it affords me much pleasure to be able to announce that already several lodes (some of which are the East Lovell lodes) have been discovered only a few feet from surface; and Captain J. Burgan, the manager of East Lovell, stated at the meeting that they present a more promising appearance than they did in that mine at the same depth; hence it may fairly be expected that an early discovery of tin will take place. The shares are in good demand, and will, probably, have a steady rise. There is 3000*l.* to the credit of the mine with the Helston Banking Company.

From Mr. JAMES CROFTS:—It is known to a section of the mining interest that attention is drawn, in consequence of the great results now in progress in GREAT LAXEY LEAD MINE (Isle of Man), to that district, influential parties having lately crossed the sea to offer London capital for the development of new setts. The forerunner of a new series of lead mines, which may prove rivals to the CHIVERTONS of Cornwall, is the EAST LAXEY, preliminarily introduced in 60 shares of 100*l.* each, or 6000*l.*, to be retained by the promoters, and the mine subsequently constituted in 6000 shares, upon which 10s. per share is to be paid and reserved as working capital. Only a brief report has yet appeared, dated May 14, and signed by "R. Rowe, manager of the Great Laxey Mining Company," who appears to augur high success to the concern as a consequence of that of Great Laxey. The conclusion of the said report is all that is necessary to recommend this adventure to the public, because it is understood that Mr. Rowe is, or will be, probably at the head and front of other setts in preparation for the London capitalist, consequently an eager competition for LAXEY shares may be anticipated. Mr. Rowe says—"I am of opinion that the Laxey district is in its infancy, and that the one lode so successfully worked for nearly 50 years, and now turning out richer than ever, is not by itself, but only one of others requiring but a moderate amount of capital and perseverance to prove them equally rich and untiring in their varied production." It will be observed that this paragraph is well put together, and if Mr. Rowe's mining talents are equal to his diction, the index hand may point to several mines with a gentleman as their manager.

Of other lead mines, WHEAL CHIVERTON appears most in favour, and at the reduced price of the day, appears a safe stock to invest in largely. All the West Chiverton lodes are positively known to exist in Chiverton, beyond which much more need not be said. The public are invited to compare the price between Chiverton and West Chiverton, in an equal number of shares—the latter being 72*l.* to 74*l.* per share, and the former 11*l.* to 12*l.*—a great disparity in price, unless stress be laid upon the fact that West Chiverton is paying dividends, and Chiverton is neither doing so nor making calls. In this category of safe concerns NORTH CHIVERTON must not be omitted. The writer has no direct interest in any of these shares, and hopes his comments will be received as entirely disinterested. That they are all first-rate mines is not doubted, and more such would tend to raise the character of the mining market.

From Mr. HENRY GOULD SHARP:—The Market for British Mines has been active, and a steady business doing. The shares principally in demand have been Nangiles, East Grenville, East Carn Brea, Wheal Crebor, Wheal Seton, Great Wheal Vor, Sithney Carnmeal, Clifford Amalgamated, Wheal Grenville, East Lovell, &c.

NANGILES are 31 to 32, and very scarce; the "bears" have not yet delivered the shares sold, but they manage to borrow them every settling-day. Yesterday numbers of transfers were returned by the secretary dishonored, and every attempt will be made to put the price down. The shaft in Nangiles has been sunk 20 fathoms, on a lode varying in value from 35*l.* to 80*l.* per fathom for the length of the shaft. This lode is known to extend, more or less rich, for about 100 fathoms. No doubt it will be found to extend much further, especially in the deeper levels. In the bottom of the 86 fm. level there are several sinks, in which the lode is very rich, but which it has been impossible to work till now, on account of the water. The 96 fm. level is being fast driven under them, and the water is passing away. Within a month the 106 will begin to be driven on the course of the lode. At the last meeting a call of 30s. per share was made, which would be about equal to a call of 5*s.* per share in a mine of 6000 shares. Nangiles is in 1024 shares. This call, moreover, was for four months' working, and during five weeks of that time, when the new plunger-lift was being fixed, no copper could be broken at the engine-shaft, and no tin stamped, on account of the stamping machine being used for the steam-capstan. There were also heavy expenses to be met, arising from the new plunger-lift and new pitwork being put in from the 80 to the 96. The call was, thus, really only equal to a call of about 3*s.* per share for three months' working in a mine of 6000 shares. The expenses of the four months' working amounted to 1516*l.* The proceeds from the sales of tin and copper were 1191*l.* If we add to 1191*l.* the proportion that would, on the same scale, have resulted from working during the five weeks, we find the amount would have been considerably more than working expenses. The working expenses are about 89*l.* per week, and the proceeds from sales would have been about 99*l.* The heaviest portion of the expenses in Nangiles is now over. Stamps have been erected and paid for, and regular returns of tin are now making (about 4 tons per month) from a lode in the 56 fm. level 8 ft. wide, and worth 30*l.* per fm. The returns of copper ore will now be greatly increased, as they will be procuring it from the sinks in the 86, which are now being drained by the 96 being driven under them, as well as from the 96 with its stopes and bottoms, and also from the 106, on which they will soon begin to drive. The next call in Nangiles will be very light, after which it will, no doubt, pay cost, and gradually progress towards a dividend state. At their present price, about 32*l.*, the shares, if increased to 6000, would be only about 5*l.* each. With such prospects as Nangiles now has, I consider the shares well worth buying, with the certainty of a considerable rise, and future dividends.

EAST GRENVILLE shares advanced to 5¾ buyers, and close 5¼ to 5⅝; they may go higher, the mine having improved. EAST CARN BREAS have been in great request, through cutting a new lode, and they leave off firm at 8¼ to 8⅝. WHEAL CREBOR is looking better, and shares in demand at 46*s.* to 48*s.* WHEAL SETONS continue firm at 22⅞ to 22⅞; this mine is paying 24*l.* yearly in dividends. GREAT WHEAL VORS are firm at 33⅛ to 34, and likely to go better; the mine never looked so well. SITHNEY CARNMEALS have advanced in price, and close 7¾ to 8; a good share to buy. CLIFFORD AMALGAMATED shares have again advanced to 33⅛, buyers; these shares are a good investment, and 1,100,000*l.* has already been paid in dividends. The rich lodes of this mine pass through Nangiles. WHEAL GENVILLES have been quiet, the mine is improving, and they close 8⅛ to 8⅝. EAST LOVELLS, 20 to 20⅛.

A vast number of new mines have lately been brought out under the Cost-book System (mines under limited liability do not answer, and never will), but caution should be exercised before buying. Amongst those worth attention at present prices are—SITHNEY WHEAL METAL (adjoining Great Wheal Vor, on the same run of lodes), 3¼ to 3⅛. CHIVERTON VALLEY, 4⅛ to 4¾, having West Chiverton lodes, and 8000*l.* working capital. EAST CHIVERTONS, 2⅛ to 3, and well worth buying. The other mines I recommend are—NORTH WHEAL BASSET, 1¾ to 2; this mine has paid 88,000*l.*, and shares were 44*l.* each a few years since; the prospects of improvement are good, and a considerable rise will take place. WHEAL AGAR, 3¼ to 3⅜; there has been an improvement here, and these shares are safe to double from the present price. WHEAL UNION, 1¾ to 2, should be bought; they were 8*l.* per share about two years ago. SOUTH CONDURROW, 1⅛ to 1¼, and are safe to rise in price; this mine adjoins, and has the same lodes as West Basset, which has paid 150,900*l.* in dividends. GRAMBLER AND ST. AUBYN, 7⅛ to 8⅛, in 486 shares; the ground has changed for the better, and 11,000*l.* has been paid in dividends. WHEAL BULLER, 28 to 30, in 256 shares only; this mine has paid 237,924*l.* in dividends, and shares are worth buying. NEW SETON, 82 to 84, are likely soon to touch 100*l.*, and an improvement is shortly expected. PROVIDENCE, 39 to 40; WHEAL TRELAWNY, 20 to 21; EAST BASSET, 65 to 66; EAST CARADON, 28 to 28½; WHEAL BASSET, 90 to 93; are all good investments, paying good dividends. WHEAL MARY ANN are in demand, 15 to 16. KELLY BRAY, LADY BERTHA, SOUTH CARADON HOOPER, GREAT CARADON, WHEAL IDA, and SOUTH BASSET also deserve attention at present low prices.

From Mr. W. LELEAN:—The Mining Market throughout the week has been more active for a variety of speculative mines. GREAT LAXEYS are in demand at former quotations. The report, which appears in another column, values the various stopes and ends in the aggregate at 1550*l.* per fathom, and it is anticipated the next report will be greater still. A dividend of 5*s.* per share will be made on the 8th of this month. At TOLVADDEN the agents report that the lode in the 93 will now yield from 4 to 5 tons of yellow copper ore per fathom, and every indication of improving. The lode in Nos. 1 and 2 winzes, sinking below the 83, worth from 3 to 4 tons of copper per fathom. The lode is cut at the 60, east of Down shaft, 7 feet wide—a beautiful lode, with a leader of yellow copper ore, jack, and lead. This discovery is about 8 fathoms west of the run of ore ground driven through at the 30 for 38 fathoms in length, and opens out quite a new feature in the mine. At EAST WHEAL LOVELL the south lode has greatly improved; altogether the mine is looking well. At GREAT SOUTH CHIVERTON the ground in the adit has improved, and the agents write to say that they hope now to be able to drive 30 fathoms per month instead of 20, as heretofore. Sanguine expectations are entertained of cutting the lodes rich, as they are parallel, immediately opposite, and about 100 fathoms south of the rich workings of West Chiverton. Intending investors in this interesting property should lose no time in purchasing while the shares are at a low price. EAST TRESKERBY is opening out a valuable mine, and the patience of the shareholders will soon be rewarded. GREAT DARREN continues to improve daily. The agents expect to cut the lode in the 15 within the next fortnight. At NORTH MINERA the workings are being pushed on vigorously, and the lode in the shaft is expected to be cut about six weeks hence. EAST CARN BREA and EAST ROSEWARNE have improved. WHEAL CREBOR, on the contrary, is not looking so well.

On the whole, I consider the market to be healthier than for some time past, and a much better feeling prevailing respecting the price of metals. Altogether I anticipate a successful season.

LEAD MINING IN SCOTLAND.—A valuable discovery is reported to have been made on the property of Mr. William Forlong, at Erins, Lochfyne, which has been carefully explored by Mr. J. Cowsell, of Manchester, who, on May 9, discovered a vein of galena or deep blue flookan; it has since been opened up, and is found to be 9 ft. wide, and traceable for 1¼ mile. Mr. Cowsell regards this as the champion lode of the district, and entertains a high opinion of its value.

A NEW LIMESTONE FIELD.—The opening out of the almost inexhaustible beds of excellent carboniferous or mountain limestone, at Forcett, near Gainford, has been talked of and planned about for some years, but the insurmountable difficulty has always been the inability to get railway communication. Private enterprise has at length brought matters to such a stage that the accomplishment of the desirable undertaking seems to be certain. A preliminary prospectus of a proposed new limestone company and railway company, on the limited liability principle, has been issued, but its circulation is at present confined to the ironmasters and merchants of the district. The limestone at Forcett is 53 feet thick, and yields 159,000 tons of stone per acre; the baring does not exceed an average of 3 feet. The stone is 12 miles nearer Darlington (and consequently the places east of Darlington) than the present nearest quarries at Broadwood and Frosterley, and the cost of working will be at least 2*s.* per ton less as compared with Weardale. Taking into account the saving of dues, it is calculated that the Forcett limestone, as compared with Weardale, can be supplied at quite 8¾*d.* per ton cheaper. For the conveyance of the limestone, it is proposed to construct a branch line of railway about five miles in length, to commence by a junction with the Darlington and Barnard Castle Railway, a little to the east of Gainford, at an estimated cost of about 30,000*l.* The analysis of the stone shows it to be good for building, and agricultural and ironmaking purposes.—*Newcastle Daily Chronicle.*

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending May 29 was 13,066*l.* 13*s.* 9*d.*

FOREIGN MINES.

DON PEDRO NORTH DEL REY.—J. E. Dawson, June 3: Messrs. John Moore and Co., the agents of the company in Brazil, write as follows:—Mr. E. E. Howe, the talented and intelligent second engineer of the Rio de Janeiro City Improvement Company, wishing to take a trip into the interior, we invited him to visit your property, and we have the pleasure to inform you that he has given to us and to others a most flattering account of the future prospects of your mines, which he considers to be very good when they are fully developed; and he also speaks of the system, order, regularity, and general organisation, as reflecting the highest credit on your manager.—Capt. Treloar reports: That since his last advices they have had some rain, not sufficient to interfere with the mining operations, but enough to bother him in the surface work. The change in the direction of Bawden's Mine in descending is developing itself into a decided split of the lode into two parts This month he has followed the eastern part of the same, but its yield has not been good, the produce, therefore, will not be very great, and he hopes the other, or northern part, will prove to be the main one. Brandt's Mine still continues very promising, and the appearances at the Marmalintra have improved. At the Mina Dereita we are still boring, but at the Jambreio we have been deprived of the samples. The Mina de Sociedade has just been drained, and the progress of the shallow adit has been satisfactory. At Maquini the roads have been repaired, the rio (water-course) partially cleaned, a shed erected for the work people, and other preparations made for washing the jacotinga as excavated.

ANGLO-BRAZILIAN.—Capt. Thomas Treloar reports:—The stope in the deep adit is now drawing to a finish, and in a short time he hopes to commence driving; this will relieve several good hands for other operations. At the Barril adit progress has been made at Haymen's shaft. On April 18 three corps commenced working, each corp in the charge of an Englishman. Several sets of timber have been put in, and already we have a few fathoms secured and ready for laying the timber for the footing plane. The new stamps he hopes will go to work early next week The stock of stuff accumulated from the road opening out to the Gongo Mine will now be stamped. This is poor, but he hope to be able to put a night corp to work in the Barraco Secco and Gongo Mines, to assist in supplying and, as before stated, in driving the new shaft. There is very little doubt we shall meet with mineral matter that will pay well for stamping. The bactas from the stamps have shown better samples of gold than of last month. Force is still appearing, both blacks and free men.

PACHUCA.—Capt. Paull, April 25: We were only last week able to resume the driving of La Cruz level east, and in consequence of so much (tepetate) soft that came away, I had to suspend La Cruz west as well, therefore there is no alteration in either of the ends since my last. San José winze is sunk 16 varas below San Juan level, on the jabones part, in which we occasionally meet with stones of good ore, but the main part of the lode is to the north, and being composed of hard quartz we are leaving it stand until we get to the depth of San Jorge level, which, at the present rate of sinking, will take a fortnight more. The ground is still very hard in San Juan level; they have only driven 3 varas in five weeks, at $24 per vara; last week they met with a wall in nearly the same direction as the level, and which I think will lead to the main lode, and which we ought to intersect very soon, unless the underlie is more than at surface. The timbermen have refused to bring in timber at the usual prices, consequently we have not yet erected the whim on San Pascual shaft. I have purchased the material and made the necessary ropes for it, and perhaps this week they will begin in the remaining timber; should they do so, I will get the whim put up with as little delay as possible. The lode in Santiago level west at San Luis is getting more settled with quartz nearly all over the end, and more spots of ore, a very large quantity of bronce, which looks like metal underground; there is still lode standiag to the north; the ground is a little more favourable, average driving 1 vara weekly. If the air was better I would propose to sink a winze, for I feel confident that in depth the lode will be very productive, and being so wide we may expect a large extraction. The lode is also improved in the level east, wider, with more quartz, and towards the bottom of the end I broke on Saturday some stones of blue ore, which I consider will assay 10 or 12 marcs per monton; they have driven 4¾ varas in the last four weeks. I am daily expecting to cut down the water from the old shaft; I am afraid it will come away suddenly and drown the men.

CAPULA.—Capt. Bray, April 23: The ore cut in cross-cut No. 1, in San Enrique, has proved to be only a bunch; it has produced 7 cargas of ore, with the usual characteristics of the ore of this mine—isolated stones, very rich, but the general quality low. Cross-cut No. 2 led to no discovery. We have resumed driving the old east, at 223 per vara. There is a large lode in the end, of the same nature as in the level of San Frutuso above, but in borrasca. San José West, having been driven over 80 varas and showing no improvement, is now suspended until we shall be in a better position to continue it. San José East has been driven in all 10½ varas; at the commencement it opened on a narrow branch of the best class of ore I have seen in the mine, but is at present poor, and is now driving at $20 per vara, as the ground has become harder. Campo Florido has been suspended for the same reason as that expressed in the case of San José West, having been driven 13 varas without making any discovery of value. The cross-cut of Nuestro Amo north is still continued; since passing the vein of San José it has cut two very narrow strings of ore. The total length driven to date is 14¾ varas, present price $10 per vara. We have commenced a cross-cut south in San Frutuso level, at a point 93 varas east of the main shaft, with the object of trying all the south lodes in this part of the mine, where they appear not to have been touched hitherto. We have also commenced to sink on the counter lode that intersects the main lode in the same level at its eastern extremity; this place produces a few stones of ore. The clearing of Bomba shaft is suspended until the whim, &c., is completed; we have penetrated from it to some of the western workings, but all on the lode of San José, which has been worked out almost from the surface to the bottom of the mine in this part of it. The few pillars left standing are small, and contain ore of a very low quality; the bottoms are covered, and partly filled with rubbish. On the main lode I have as yet seen no western workings, although such evidently exist. I hope we shall soon be in a position to prove the capability of a horse-engine to drain and enable us to sink the mine; this work is being pushed on as fast as possible.—San Rosa de Jaiya: The large vein is very much disordered, being divided into several smaller ones of half a vara or 1 vara in width; we have met with occasional stones of very good ore, but not in quantity sufficient to be of any value.—Ore on hand: The quantity we extract is so small, and the general quality so low, that I have merely kept an account of such as we have transmitted to the hacienda of San Pascual. We have now on hand about 45 cargas of a better class than I have hitherto been sending, besides about 100 of a much poorer quality.—Torta: No. 2, consisting of 7½ montons or 75 cargas, assayed 8¾ and 9 marcs per monton, and was washed yesterday. From the quantity of amalgam it has produced, but not yet burnt (120 lbs.), it will yield only about 6 marcs per monton, showing an unprecedentedly heavy lose, owing to bad grinding, and, I believe, to the presence of considerable quantities of antimony, and perhaps of manganese, in the ore. With quicksilver at $104 per quintal, and other materials at war prices, this class of ore had better be left standing in the mine

Reports from other Foreign Mining Companies appear in the Supplement.

ENGINEER'S, MINING SURVEYOR'S, AND CONTRACTOR'S FIELD BOOK.—The object of the book just published (through Messrs. Lockwood and Co.) by Mr. Davis Haskoll, C.E., is to expedite field work operations; it comprises a series of tables, with rules and notes for plotting, traverse surveying, and giving differences of level with corresponding horizontal distances in taking levels with the theodolite, and for setting out curves and slopes without calculation. To ensure that correctness which is so essential to all tables, Mr. Haskoll tells us that his have been twice computed, and every figure three times verified: they are all based on mathematical principles and calculations, but presented in the most simple form of ordinary tables, and prepared so as to be applicable to all units of measurement, whether yards, feet, links, or metres. The tables are very neatly and clearly printed by Messrs. Spottiswoode and Co., which is an ample guarantee for their according precisely with the manuscript. The work forms a handsome pocket-book, and cannot fail, from its portability and utility, to be extensively patronised by the engineering profession.

OPERATIVE MECHANIC'S WORKSHOP COMPANION.—The eighth edition of this really useful little manual has just been issued—the entire book having undergone a thorough revision and much enlarged. As truly expressed upon the title page, it contains a great variety of the most useful rules in mechanical science, with numerous tables of practical data and calculated results for facilitating mechanical and commercial transactions. By a careful perusal of the book the reader may acquire a fair knowledge of the elements of geometry, geometry applied to mechanics, decimal arithmetic, mensuration, use of the slide rule, strength of materials, mechanic powers, continuous circular motion, friction, properties of water and air, steam engine boilers, logarithms, &c. The work is illustrated with ten engraved plates and almost innumerable woodcuts interspersed in the text, and will prove of the greatest possible value both to the operative and scientific amateur. Mr. Templeton's name is so well known as an author of works of this character, that more need not be said of its value. Messrs. Lockwood are the publishers.

DEBENTURES.—The bill for enabling companies to issue mortgage debentures, now before Parliament, as amended by the Select Committee of the House of Lords, provides that the measure shall be available to all companies established under "The Companies Act, 1862," with 100,000*l.* paid-up, and whose shares are of not less than 50*l.* each, with not less than 10 per cent., or more than 50 per cent., paid upon them, and whose functions are simply to make advances on real estate or upon statutable charges secured by real estate. No debenture is to be for less than 50*l.*, and each is to have a proportionate claim on the company's mortgage assets without any preference from priority of date, but such claim is to be general, and not to be enforced against any individual item or items of such assets. The debentures are to be transferable by delivery from hand to hand, or by special register, at the pleasure of the holder. The principal is to be payable at a fixed date, not exceeding 10 years, and the claim is to override all other liabilities of the company. A register of the debentures issued is to be established in the office of land registry, and also a register of the securities of each company, which registers are to be open to public inspection, and the Registrar is to certify on each debenture that all the requirements of the Act in relation to it have been duly fulfilled. Each company is to make quarterly returns to the Registrar of all their securities and the aggregate value thereof, the aggregate amount of the shares of the company and the numbers, dates, &c., of the debentures issued and remaining in force, such returns to be vouched, if necessary, by the production of the various deeds held; and the Registrar is to grant a quarterly certificate comprising these particulars. Finally, it is stipulated that no company shall issue mortgage debentures to an extent exceeding the amount of its securities, or more than 10 times the amount of its uncalled share capital.

GUN CUTTON.—At Dolcoath Mine, a few days since, two of the miners, who had a small quantity of gun-cotton left with them for trial, attempted to cut off a part of the "white rope," as they called it, with an axe, instead of cutting it off with a sharp knife, and consequently had their "fingers burnt" by the explosion, more literally than was agreeable to their feelings; and it is hoped this will cure them of the carelessness too common to miners in the use of explosive materials.

THE NEW SAFETY BLASTING POWDER—LARGE BLASTING OPERATION.—On Saturday last, at Relubbus Quarry, near Helston, a mass of granite, computed to weigh above 1000 tons, was most successfully dislodged by a charge of about 20 lbs. of the above material, now being manufactured at Southdown, near Devonport. The hole was bored to a depth of 11 ft., was 3 ft. in diameter, and was estimated to require a charge of 30 lbs. of the ordinary powder.

THE TIN STANDARD.—The tin standard remains as last reported. Common, 98*s.* to 99*s.*; refined, 101*s.* to 103*s.*; but there is more animation in the trade, and altogether a better feeling exists. The standards at this time last year were just 10*s.* per cwt. above what they now are. We stated last week the average of Dolcoath tin ores, for the 11 years ending 1863, to have been 62*l.* 12*s.* 6*d.* per ton; the figures should have been 71*l.* 16*s.* per ton.—*West Briton.*

Mining Correspondence.

BRITISH MINES.

RAGTOR.—W. Hosking, June 2: We are progressing with the sinking of the eastern engine-shaft on Prosper lode. The ground is rather spare for sinking at present, and from the dip of the country, the cross-course, and tin ground gone down in the 16 above, we are daily expecting a great improvement in this lode in sinking; also as our 16 has been driven through 30 fathoms of tin-bearing ground, some portions of which have been very rich, and dipping towards the shaft. The rise in the back of the 16 west is progressing very favourably. We have completed our line of rods to the quickbeam engine-shaft, and shall commence dropping our sinking-lift in a few days, when we shall be in a position to resume the sinking of this shaft, and where we may expect good results, judging from the character of the lode and country in the adit above.

BEDFORD CONSOLS.—J. Mitchell, May 31: In the middle adit level east the north lode is about 15 in. wide, composed of spar, mundic, peach, prian, and spots of copper ore, and looks promising for an improvement.

BEDOL AUR.—Thos. Pierce, June 2: We yesterday cut into a small rib of ore in the 70 yard level, north-east from Pulley shaft; the rib was about 2 in. wide and about 2 ft. down the forebreast of the level from the roof. The vein is very promising.

BILLINS.—F. Evans, June 1: In the 70 west we have a change for the better; the lode is softer, and good saving work for lead ore; it is a promising lode, and likely to produce lead in quantity. The lode in the 70 east is improving, producing excellent stones of lead and dressing work generally; this, as well as the 70 west, has very much improved the last day or two. The air in the bottom of the mine has been very inferior lately; to remedy this we have fixed a machine to be worked by the engine, that will enable us to carry on the operations continuously, which we have not been able to do for days together during the past month; as soon as this is completed, which it will be to-day, the shaftmen will begin sinking the engine-shaft below the 70 without delay.

BOSCAWEN.—J. Edwards, E. Richards, May 28: There is no alteration to notice in the 80, west of Hunter's shaft, since last reported. The lode in the 70, driving west of said shaft, is worth 28*l.* per fm. for copper ore. The stope in the back of this level is worth 15*l.* per fm. The 70, driving east of Hunter's shaft, on south lode, is 2 ft. wide, producing good stones of copper ore; lode of a kindly appearance. The lode in the winze sinking below the 60, west of Hunter's shaft, has improved during the past week; it is now 2½ ft. wide, worth 15*l.* per fm. The lode in the stope in the back of this level is worth full 12*l.* per fm. The lode in the winze sinking below the 50, west of said shaft, has improved during the past week, now 18 in. wide, worth 10*l.* per fm. The lode in the 30, driving east of caunter shaft, is 2½ ft. wide, producing saving work for lead, and likely to improve. No lode intersected in the 14 cross-cut, south of Kiteloe's shaft. The tribute department is looking just as for some time past.

BOTTLE HILL.—J. Eddy, May 31: Main Lode: The lode in the 10, driving east of Wills's shaft, is about 5 ft. wide, and producing saving work for tin. The lode in the stopes in the back of this level is about 3 ft. wide, and producing about the same quality stuff as the lode in the end. The lode in Jones's and Baronett's stope west of William's shaft, in back of the 12, is still producing good work for tin.—Robert's Lode: The lode in the 17, east of Strove's shaft, is now about 3 ft. wide; yesterday, when underground, I saw the lode; it was then rich for tin; I have examined the lode to-day, and found it less valuable. From the commencement of our driving on the course of this lode I have found the tin to make in squats, and not regular.—South Lode: In driving the 12, east of south shaft, the ground is moderately easy for working; the lode is about 15 in. wide, producing peach, prian, mundic, and occasionally good stones of tin, but not sufficient to value. I am sorry to say our water for drawing and stamping for the last three weeks has been very short, and still continues so. We are still breaking large quantities of stuff for the stamps, but it cannot be returned before the weather changes, so as to have an increase of water for stamping.

BRYNFORD HALL.—T. Pierce, June 1: Simmond's Shaft: In the 77 west the rise is still in orey ground about 20 yards above the level. A large swallow, 10 yards by 6, has interfered with our progress, as we have to cut down its sides without any returns, but as the joints at both ends east and west are of clay and lumps of ore, about 8 inches wide, an improvement is certain. We have taken down both ends of the rise for 10 yards from end to end, in both of which the vein closes up, but when through these joints I expect the vein to yield as before. In the 45, west of Dunsford's sump, we have put down a sump 6½ yards through the vein, which is at the bottom 1 ft. wide, and full of good "bosse;" I look for an improvement here daily. The north cross-cut has reached a string of ore, but the vein lies from 3 to 5 yards before us. I have taken four men off this end to work in the sump for a few days, as the water there is quick, but will very likely find a vent in sinking. The sump is yielding more ore than for the last 14 days. The south cross-cut gives ore occasionally, and we ought to reach the vein in 2 yards driving; a little beyond this another vein is seen above. I recommend the 60 to be driven through this discovery to prove the ground; the level would follow the vein, and most likely pay. I also recommend the shaft to be sunk 40 yards deeper at once, and a level to be driven east and west at that depth; east would reach the large flat in about 60 yards driving.—Grainger's: The 86, south-west on Page's vein, has been very hard for the last month. To-day the vein is opening again, yielding very nice ore, and likely to do so. We have 14 yards of the rise here, on which six men are at work getting ore. The stope is paying well, and seems likely to hold good. We are now cutting the ends for ore, which will increase our returns. We are drawing ore to-day, but how many tons we shall sell this month I do not know—say, from 8 to 10 tons. I strongly recommend a cross-cut north-west and south-east from the forebreast of the 108; much money had been spent in driving that level, when the work was suspended. No trial was made, although it is one of the best places in the world for a trial.

BRYNTAIL.—J. Roach, June 2: The engine-shaft, under the 20, is in good course for sinking; it will be 3 fathoms deep against next Saturday. In the 20 east the lode east of the cross-course has not yet been intersected, but I expect it will be reached in a day or two. The 20 west, on south part of the lode, is still impregnated with lead ore, a little of which we are keeping to dress. The cross-cut driving north on the lode still contains lead ore, the wall has not been reached. The stope in back of this level is worth 8*l.* to 10*l.* per fathom. We have several tons of lead in the bin, and some 6 or 7 tons more in course of dressing.

BULLER AND BASSET UNITED.—W. Pascoe, J. Rule, June 1: In the 80 west, on the south lode, the lode is 3¼ ft. wide. We have just cut through the cross head referred to in our last report, and the lode is now producing good stones of yellow copper ore; we are hoping for a further improvement. In the 80 cross-cut the ground is not quite so favourable; set at 8*l.* per fm. In the 60 west, on engine lode, the lode is 2½ ft. wide, composed chiefly of soft spar and prian, with a little black ore occasionally, and letting out a quantity of water; driving at 35s. per fm.

CAPE CORNWALL.—R. P. Goldsworthy, June 1: We are driving the adit level on Wheal Owl lode, by two men, at 40s. per fm.; the lode is of a very promising character, spotted with copper ore. We have four men cutting down the western end of the shaft from surface to the adit level, preparatory to fixing the skip-road. The masons are making good progress in building the engine-house. We have completed the saw-house, and preparing the shaft tackle; smith and striker making iron work for the same. The other labourers are taking out the foundations for the counting-house, cutting ground for the fines, and sundry jobs. The cylinders, piston, and several other parts of the engine were brought here yesterday.

CARADON CONSOLS.—W. Rich, May 31: The ground is favourable for driving on the north lode going west, and good progress is being made; the lode itself is large, and much the same as when last reported on. We have a set of men rising in back of the 60 to effect a communication with the winze below the 68: when this is holed it will give good ventilation. There is nothing new yet met with in the cross-cut south; the ground, however, is easy for working, and the end being urged on by a full force of men.

CASTELL CARN DOCHAN (Gold).—J. Williams, May 31: The lode in the east end of the level is 2 ft. wide, and contains iron pyrites and a little galena; there is some visible gold. At the top of the shaft we have visible gold, about the same quantity. I shall put two men at the lower cutting by the smithey. John Hughes will finish the machine-house, the road, and the water-course this week. John Parry has extracted 6 ozs. of gold from about 10 cwts. of lode stuff during the week. The Britten's pans will, I hear, be on the mine this week.

CHARLOTTE UNITED.—P. Floyd, R. Johns, June 2: The last three weeks we have cut cistern-plat, put in bearers, cistern, and fixed a 10-fm. drawing-lift at the 90, and have now to put in footway, penthouse, &c.; when done we shall commence the sinking of the engine-shaft below this level. The lode in the bottom of the shaft is 2 ft. wide, of a very promising character. The lode in the 90 east is producing good stones of ore, but not enough to value. In the west end, same level, the lode is 1 ft. wide, composed of carbonate of iron and spar. In about 8 fms. more driving we shall come under the bunch of ore gone down in the level above in No. 2 winze, which is worth 30*l.* per fm. The lode in the 80 west is 2 ft. wide, worth 5*l.* per fm. In the 70 west we have a long piece of lode to take down, in consequence of not being able to discharge the deads at this level. We have delayed taking down the lode; we, therefore, cannot say as to its value. In the 60 west the lode is 2 ft. wide, worth 5*l.* per fm. In the winze sinking below this level the lode is 2 ft. wide, worth 10*l.* per fm. In the 50 west we have a large and promising lode, and hope to find it productive for copper ore as soon as we get through the cross-course. Wheal Pleasant shaft is now down 5 fms. below the 10, and we hope to reach the 20 in the course of a fortnight, when we shall at once drive east and west on the course of the lode. We sampled on Tuesday week last 113 tons of good copper ore.

CLOWANCE WOOD.—E. Chegwin, May 28: The sumpmen are engaged casing and dividing the engine-shaft. We are clearing up an adit shaft further east to let down the water in the engine-shaft, as we have about 3 ft. of water in the cross-cut. At the engine-shaft the masons are getting on well in building the engine-house, and we are getting on well with all other surface work.

CONNORREE.—Captain Bishop, May 28: The deep adit is now extended into the mountain 152 fms. 3 ft. 11 in.; no change in the stratum. In the 54, west of engine-shaft, the rock formation and matrix of the lode are very favourable for a good yield of ore, and producing rich yellow and peacock ore, which should be regarded as an index to a rich deposit in the 64. The 45, west of engine-shaft, is yielding a very fair quantity of copper ore and sulphur smalls. The 20, west of new shaft, is looking more favourable for copper ore, and is yielding good ore. The 18, east and west of Field's shaft, on the whole, are looking much the same. In the 10, west of old cross-cut, the prospects are better for a good yield of copper ore and coppery sulphur. In the 10 south, and west of Tracey's shaft, no change has occurred in the composition of the lode or rock formation during the week. In the 20 cross-cut, south of new shaft, there is no variation in the stratum. Nothing calling for remark has occurred in the 10 cross-cut, south of Tracey's shaft, during the week. The stopes on the great copper and other lodes, and at the 35, are greatly improved; and, judging from the composition of the lode and rock, there can be but little doubt of the existence of a great quantity of copper ore at this section of the property. Other operations are much the same.

CUDDRA.—F. Puckey, E. Dunstan, June 1: We have not yet reached the lode in the 105, north-east of Walker's shaft, but we hope to do so in about a week; in the same level west we are driving on the lode, which at this point appears to be very large, and producing a little tin; this level is driven west of the above-named shaft 17 fms., and from the information we can get from the men who last worked in the 100, east from Charlestown Mines, there cannot be a great many fathoms more to drive before we shall communicate with that level. In the 90 west we have commenced to cross-cut the lode, but there is not sufficient done to ascertain its size or value. In the 75 west we are still driving by the side of the lode. In the stope in bottom of this level, and west of the winze, the lode is still looking well, worth 50*l.* per fm. In the stope in back of same level, and further west, the lode is 3 feet wide, worth 12*l.* per fm. In the 60 west we have now commenced to cross-cut the lode, but it will take us a week or two before we shall be able to inform you of its value, as at this point the lode is very hard. There has not been any lode taken down in the stope in back of this level during the past week.

CWMSYMLOG UNITED.—Andrew Williams, May 31: In the 15 fathom level cross-cut the ground is much the same as when last reported on. All the machinery is in good order.

DALE.—R. Ninnes, June 2: There is not much alteration in the Pipe vein since my last.

DOLFRWYNOG.—C. W. Seccombe, May 30: Since my last the cross-cut from No. 3 to No. 5 level has been holed. Those men are employed now in cutting a lodge for the staff, and putting in the tramway and ladders in No. 3 shaft. I let the stopes in the back of No. 4 level on Saturday to two men, at 3*l.* per fathom; the lode in this place is about 2 ft. wide, a very likely lode for gold, but without any visible at present.

EAGLEBROOK.—H. Tyack, May 31: Since my last report to you we have driven in the 30 about 2 fms., and am glad to say that the lode is improving, being now from 3 to 4 ft. wide, composed of clay-slate, carbonate of lime, and copper, with a solid branch of lead, 3 in. wide, and other small branches running through the lode, letting out great quantities of water; the lode in this place has a much more kindly appearance for making good deposits of lead than the levels above.

EAST CARADON.—J. Seccombe, June 1: Caunter Lode: The 60 east is producing saving work. The 70 east is worth 15*l.* per fm.; the 80 east, full 25*l.*; and the 80 west, 8*l.* per fm.—New Lode: The 60 west is worth 5*l.* per fm.; and the 70 east, 5*l.* per fathom. The 80 west is producing saving work.—South Lode: The 70 east is worth 8*l.* per fathom; and the 70 west, 5*l.* per fm.

EAST CARN BREA.—T. Glanville, J. Scholar, June 1: No. 3 Lode: In the 60, east of cross-course, the lode is producing 1 ton of ore per fm. In the stopes in back of the 60 the lode is producing 7 tons of ore per fm. In the 50 east the lode is producing 1 ton of ore per fathom. In the 30, east of western shaft, the lode is producing 3 tons of ore per fathom. In the 30, west of western shaft, the lode is producing 2 tons of ore per fm. In the 26, east of cross-cut, the lode is producing 6 tons of ore per fm. In the 26, west of cross-cut, the lode is producing 4 tons of ore per fm.—No. 4 Lode: In the 50 west the lode is producing 2 tons of ore per fm.—No. 6 Lode: In the 50 west the lode is producing 1 ton of ore per fathom.

EAST CHIVERTON.—J. Nancarrow, May 31: Our engine-shaft is now between 2 or 3 fathoms below the 35 fm. level, which is quite deep enough for fixing a plunger-lift; there is a very good channel of ground in this shaft. I suppose it will take us the best part of another month to fix this lift, and then we shall be in a fair way of sinking for a deeper level. The north cross-cut is not quite so hard as it has been, but there is no other change since last week. I hope, from present appearances, that we shall be able to extend this, and cut away faster. The south lode is not so large as last week; it is now about 18 in. wide, with a very promising appearance, and of just the same nature as last week. The country is somewhat harder than it has been, so that it will not be so expensive to timber this ground as hitherto. The north branch is much larger than ever I saw it before; it is now about 2½ feet wide, composed of white prian, spar, peach, and mundic, with a slide 6 in. wide on the lying wall; altogether, this lode has a much more promising appearance than I have ever previously seen. The adit cross-cut is still in a splendid channel of ground, and I think, if we meet with a lode in this ground, there are great chances of meeting with lead, and it is still very soft for driving. It is now six weeks since we commenced this cross-cut, and in this time we have opened 40 fms.; so you will see by this we are making good progress.

EAST CLOGAU (Gold).—K. Roberts, May 31: There is no change in any of the underground bargains since last reported on. The men have finished cutting the plat in No. 2 St. James's level, and we shall now commence sinking on the lode. To-morrow we intend to put in a stronger spindle in the mitre cog-wheels, so as to work the machinery more steadily. In the meantime we shall be in want of quicksilver and other things.

EAST DARREN.—May 31: Taylor's Shaft: In the 116 east the lode is 2 ft. wide composed of a light clay-slate, carbonate of lime, and small branches of lead ore, but not to value. In the 104 east the lode is from 2 to 3 ft. wide, composed of a dark blue clay-slate, grit, and small branches of lead ore, but not a sufficient quantity to value. In the 92 east the lode is 4 ft. wide, and has improved for lead ore since last reported, now producing full 1 ton per fathom. In the 92 west, on the south branch, 45 fms. east, the lode is from 4 to 5 ft. wide, composed of hard grit, carbonate of lime, and lead ore, yielding of the latter 1¼ ton of ore per fathom. In the 80 east the lode is from 4 to 5 feet wide, composed of a dark blue clay-slate, carbonate of lime, and producing about 10 cwts. of ore per fathom, not looking quite so well as it did. In the winze sinking under this level the lode is 5 feet wide, producing 2 tons of ore per fathom. In the 68 east the lode is from 4 to 5 ft. wide, producing 1¼ ton of ore per fathom.—Reed's Shaft: In the stope over the 80 west the lode is 1½ ft. wide, producing 4 to 5 cwts. of ore per fathom. The cross-cut south of the 68 west is without any change since last report, the men being engaged in clearing stuff and repairing the level. The stopes and pitches throughout the mine continue to yield their usual quantities of lead ore. We have now a pretty good supply of water, which enables us to keep our machinery and all surface work in full operation.

EAST GREAT WORK.—J. Lean, June 1: We are getting through the lode mentioned in last week's report. This is supposed to be the Wheal Dolphin little lode, and where seen in the adit is seldom more than 7 or 8 in. wide, and without much mineral; but at the shaft it is from 2 to 3 ft. wide. The cab course is 15 in. wide, chiefly spar, with spots of lead. The other part, chlorite, spar, and mundic, with grates of black oxide of copper ore, and some good stones of tin; it has a most promising appearance. The shaft will be continued perpendicular to the nearest lode. We shall not be able to say much more about this till it is intersected below. The shaft is now sunk 11¼ fms. below the shallow adit. The deep adit communicated with the engine-shaft last night. As soon as the stuff is cleared the men will commence to drive north to cut the Great Work lode west of the intersections. From the appearance of the lode where seen above this place, about 5 fms. below the surface, there are strong reasons for anticipating a good rich lode.

EAST GUNNIS LAKE.—W. G. Gard, June 2: The last hole fired in the shaft blew through to the rise, but without dislodging any ground. We are now quite certain that the direction is right, and we must now very shortly communicate. There is no alteration in any other part of the mine. We have everything prepared for going on with the shaft below the 36 as soon as it is holed.

EAST PROVIDENCE.—T. Uren, W. White, June 1: We are making fair progress with the sinking of Wilson's shaft below the 50. In the 70, south-west from Boorman's shaft, the lode is worth 6*l.* per fm. In the 60, south of cross-cut, the lode is worth 10*l.* per fathom. The 60, east of junction, on Bamfield's lode, is worth 15*l.* per fm. The stope in bottom of the 60, east of junction, on Bamfield's lode, is worth 20*l.* per fathom. No change in any other part of the mine.

EAST TRESKERBY.—J. Nancarrow, R. Knuckey, June 2: The lode in the 12 west yields a little tin; the stope below the level is improved, worth for tin and copper 15*l.* per fm. The lode in the 12 east is 8 in. wide, composed of chlorite, blende, and copper, and is likely to improve. The east stope in back of the 12 is worth 14*l.* per fm., and looks exceedingly well; the west stope is worth 6*l.* per fathom. The ground at the east shaft is hard; lode 2 ft. wide, the under part of which yields good tinstuff. The lode in the 20 east is small and disordered, but the ground is changed for the better, and we expect an improvement in the lode shortly.

EAST WHEAL ELLEN.—J. Garland, T. Corfield, June 1: The lode has been taken down in the deep adit end, east of Pryor's shaft, since our last report; it is large and kindly, about 3½ ft. wide, composed of copper, mundic, blende, peach, capel, &c.; of the former it does not contain enough to value; it still carries the flookan on the north wall, which we consider to be a very good indication. The stopes are still yielding about their average quantity of ore.

EAST WHEAL FORTUNE.—W. W. Martyn, June 1: The adit cross-cut south has intersected a branch composed of flookan, prian, mundic, and tin, but the main lode is still further south. The ground is highly mineralised and congenial for tin, and from the great excavations at surface, a productive lode is expected to be met with. The shaft sinking on the north lode is down about 5 fathoms from surface, where the lode is 4 feet wide, composed of quartz, chloride, prian, and mundic, carrying a strong gossan, and from its highly mineralised character a rich lode in depth may be reasonably expected

EAST WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, June 1: The lode at the engine-shaft sinking below the 65 is from 15 to 18 in. wide, producing good stones of yellow ore, a kindly lode, and which we think is improving. At the 65 east no lode has been taken down since Saturday; it is 2½ feet wide, yielding good ore, worth 1 ton per fathom; this lode is improving for copper, and which we think will ultimately be found to be a copper lode. The lode in the 65 west is between 4 and 5 feet wide, yielding full 7 tons of ore per fm., and which is evidently going over a fine course of ore; this is as pretty a looking lode as we have ever seen in the district. At the 55 west the lode is also improving, producing good stones of strong yellow ore, although not enough to value; we like the appearance of the ore coming in very much. All the other places are the same as last reported.

EAST WHEAL LOVELL.—J. Burgan, June 2: The shaft sinking below the 20, on the south lode, has considerably improved. With this exception, the mine is looking much the same as reported last. I am proud to remark that every part seems substantial, and daily increasing in value.

EAST WHEAL RUSSELL.—J. Goldsworthy, June 1: Homersham's shaftmen are engaged on sundry work in the shaft. In the 130, east of Homersham's shaft, the lode is 3 ft. wide, composed of capel, quartz, prian, mundic, and produces stones of yellow copper ore; the ground is favourable, and good progress has been made. In the 120, west of Maynard's cross-cut, the part of lode being carried is 4 ft. wide, composed of capel, iron, quartz, prian, and a little copper ore. The ground in Barkell's winze, sinking below the 120, is rather spare just now, owing to a floor of spar; this we expect is only a floor. In Barkell's cross-cut in the 120 east, driving north, the ground is a mixture of capel, quartz, mundic, killas, &c. The stope in back of the 120, east of Doidge's winze, is worth 8*l.* per fm. The stope west of Doidge's winze is worth 4*l.* per fm. The lode in the rise in back of the 77 is 1¼ ft. wide, composed of capel, quartz, prian, mundic, and copper ore, but not sufficient of the latter to value. In the 45 east the lode is 2½ feet wide, composed of capel, iron, quartz, prian, and produces a little yellow copper ore; the lode is promising in its character. In the 88, west of Hitchin's engine-shaft, the ground in the cross-cut driving north has become a little harder, which renders the progress somewhat slow at present.

— J. Richards, June 2: Homersham's Shaft: In the 130 east, on the south part of the lode, the lode is of good size, 3 ft. wide, composed of mundic, capel, prian, quartz, and good stones of yellow copper ore. In the 120 west, and west of Maynard's cross-cut, on north part of the lode, the lode, or part thereof being carried, consists of capel, quartz, peach, prian, mundic, and a little ore. A winze (Barkell's) is being sunk below the 120 east, with a view of ventilating the 130 as quickly as possible; the ground at present is rather hard, which we hope, and have every reason to believe, will be only temporary. In Barkell's cross-cut north at the 120 east the ground continues a mixture of peach, quartz, capel, mundic, and iron; the progress is rather slow. In the stope in back of the 120 east, west of Doidge's winze, the lode is worth 4*l.* per fm. In the stope in back of the 120 east, and east of Doidge's winze, the lode is worth 10*l.* per fathom. In Hooper's rise in back of the 77 east, on the north part of the lode, the lode is 18 in. wide, consists of capel, mundic, prian, quartz, and ore, saving work. In the 45 east the lode is from 2 to 3 ft. wide, and good stones of ore are being obtained therefrom; it is altogether looking more healthy. In William's cross-cut north at the 88, west of Hitchins's engine-shaft, the ground is not so good; the progress is, therefore, at present slow.

EAST WHEAL VOR.—W. C. Vivian, May 28: Wheal Vor Main Lode: The engine-shaft is now about 9 fms. under the 60, where the lode is 2 feet wide, composed principally of brent (the tin-bearing matrix of the district), and has an appearance indicating an early improvement. In the 60 east the lode is 5 feet wide, and has been disordered, but is now becoming more compact, of more favourable character, and producing occasional stones of tin; I think we may calculate on an early improvement in this end. In the 60 west the lode appears to have been lost by the former workers, and a cross-cut is being driven with the expectation of intersecting it in a few feet. The dialling which the agent has made of the levels would show the lode to be a little north of the present 60 fm. level end. The 60 cross-cut north, with the object of intersecting Smith's lode, has been driven about 8½ fms., leaving, according to estimate of the agents, 22 or 23 fms. more to drive to reach the lode alluded to, and this operation will be pushed on with the greatest possible dispatch, the object being a very important one.—Smith's Lode: In the 30, east of cross-cut, the lode is 3 feet wide, and looks likely to improve; this lode has more the appearance of a copper than a tin lode, and produces black copper ore, mixed with blende and gosson; it underlies south, which is different from the other lodes of Wheal Vor and the district generally, and it will thus form a junction in depth with Wheal Vor main lode (on which the engine-shaft is being sunk) at about the 100 or 110 fm. level. The largest masses of tin which occurred in old Wheal Vor were met with immediately under similar junctions, but very rich formations of tin were also found above them, and it seems probable that this will also be the case in this mine. In rising in the back of the 30, for the purpose of forming a shaft to ventilate and command the effectual working of this lode, 13 fms. have already been got through; this rise has hitherto been opening through a lode worth from 10*l.* to 15*l.* per fm., but at present it is not of much value, although producing tin.—Wheal Metal Lode: In the boundary shaft, which is a few feet only east of the boundary between this mine and Sithney Wheal Metal, it has been found that for the present the water cannot be drained deeper than 6 fms. from the surface by hand labour, so at this depth a cross-cut has been driven a few feet north, and a lode intersected: this lode has all the appearance of being Wheal Metal main lode, and although seen by us only 6 fms. beneath the surface as yet, it has there all the regularity, strength, and hardness which lodes generally only possess at much greater depths; it is 15 in. wide, underlays 2 ft. 3 in. per fm. north, and is already producing tinstuff equal in quality and of precisely the same character as that which it is now yielding in such great abundance in Wheal Vor to the west; about 2¼ fms. have been opened on it in the 6 fm. level eastward from the boundary shaft, and the lode having been taken down yesterday a pile of very rich tinstuff was drawn to the surface. Some of the stones taken from this heap were assayed in my presence, and found to be ⅔ pure black tin. A shaft has been commenced on this lode 150 fms. further east, and sunk 12 ft. from surface, where it has just struck the lode, which is of a highly favourable character, being composed of burnt ruggy quarts, gossan, and brent, but sufficient has not yet been seen of it to ascertain its size. The results already met with on this lode from the very little that has yet been done, taken together with the well-known fact that in Wheal Vor it was rich to within a few feet of surface, gives to this mine prospects which have, perhaps, never been surpassed in any tin mining ground in Cornwall.

FRANK MILLS.—J. P. Nicholls, J. Cornish, June 1: We have resumed the rise and stope in the back of the 100 north, on the west lode, which we find to be still quite as productive as last reported, yielding 1 ton of lead ore per fm. All the necessary preparations are now nearly completed, and the alteration in our drawing is answering most satisfactory. We shall, therefore, commence to sink the engine-shaft below the 100 on Monday next, and shall push it down with the utmost dispatch. The stopes in the back of the 60 north are looking much the same as they have for a considerable time past—the wide stope is yielding 2¼ tons, and the one adjoining to the south 1¾ ton of lead ore per fathom. The 45, south from rise, is still passing through a beautifully soft light-coloured killas, with occasional oblique white iron branches coming in from the west, interspersed with stops of lead ore. In the 45, north from air-shaft, we have a small branch of blende, with a little lead ore, but not enough to value. The tribute pitches generally are looking very well, and some of the men are earning high wages. We are progressing very well indeed with our dressing operations, notwithstanding our having been delayed whilst be we were engaged fixing skip-road, &c.

FURZE HILL WOOD.—W. Doidge, June 1: No. 1 North Lode: In the 40, driving west, the lode has improved since last reported, now being 3 ft. wide, and worth 5*l.* per fathom for tin, and likely to further improve; set at 2*l.* 15s. per fm., for 2 fathoms stent. The stope in back of this level is worth from 6*l.* to 8*l.* per fm., and is set for the month, at 1*l.* 12s. 6d. per fm. At the 40 the cross-cut to drive north to intersect the No. 2 north lode is set at 3*l.* 10s. per fm. We are preparing a parcel of tin, which will be ready in about a fortnight, and hope to have 4 tons.

GARREG.—W. Sandoe, May 41: No change has taken place in this mine since last reported upon. We have not holed the winze through to the rise as yet, but are daily expecting to do so.

GAWTON.—G. Rowe, May 27: The ground in the new engine-shaft is not quite so favourable for progress as it hitherto has been, in consequence of coming in contact with some hard floors of spar, which we deem as temporary. The lode in the stopes in back of the 36 is without change, being large, and producing its usual quantity of ore. All other points of operation are progressing satisfactorily, and as fast as the nature of the work will admit.

GLASGOW CARADON.—W. Taylor, May 31: There is no change of importance to notice in either the 52 east or west since my last report. In the 40 west the ground is more favourable, and lode looking better. We are pushing on the cross-cuts in the different levels as fast as possible. In the 65 the ground is favourable for driving, and letting out water, probably getting near a branch or lode passed through in the 52. The stopes throughout the mine are looking well, and turning out good quantities of ore. We are getting on very well with dressing, and hope to have an increased quantity for next sampling of a better quality.

GREAT BRIGAN.—J. Tredinnick, May 28: We have a little harder floor of ground in Highburrow shaft than usual, which has disordered the lode, but I hope it will not continue long. We have timbered up Ennor's shaft to the surface, and shall fix a whim to draw from the same next week. The ground in the cross-cut driving north from Ennor's shaft is moderate for driving. No change has taken place in the end driving west of Highburrow shaft at the 33 during the past week. The ground in the cross-cut driving south is much the same. No alteration in the cross-cut south from east boundary shaft. We are getting on well in cutting down the eastern shaft near the boundary. All other work is progressing satisfactorily.

GREAT DARREN.—R. Williams, June 1: At the bottom of the shaft we have been driving, and have opened about 6 feet east and west on the line of the lode, but not on it; we do this before we fix the cistern and lift, to avoid the danger of breaking it by blasting close to it; and we avoid the lode for the moment, that we may not be overpowered with water before fixing the lift; this will be done in a few days, in the mean time matters at the bottom are proceeding satisfactorily. The lode in the forebreast, driving from the stope in the back of the 10, is not quite so productive as it has been, but there is a good stone of ore continuing in the bottom thereof, which we are now taking up, after which we shall proceed to stope the back. The drawing machine is on the mine, and materials for building the necessary masonry, which will go forward at once; and, generally, we are making progress.

GREAT EAST LOVELL.—J. Burgan, June 2: We are making good progress in sinking the shaft on the north lode, where the lode is 2 feet wide, and has every indication of becoming a good lode. The other lodes require a little more depth, when very probably they will prove rich for tin.

GREAT LAXEY.—J. Kitto, May 28: In the south, or copper-producing, section of the mine operations have been continued during the month, without exhibiting any very important change. The 130 and the 155 ends are yielding good copper, and are each worth about 5 tons per fm. There is now a little copper showing itself in the 165 end, and which, I have no doubt, will improve as the end advances. The stopes in this part of the mine are looking very fair, and worth, on an average, from 4 to 5 tons of copper per fm. In the north part of the mine the present prospects are of a still more cheering character; we have just touched upon the east vein in the 210 cross-cut, north of the Welsh shaft, but are not sufficiently into it to be able to state its value, but shall be in a position to do so in the course of another week or so. We have holed the sump-sinking below the 200 to the 210, and at once commenced stoping each end of the same, in a large lode of jack, nicely mixed with lead. In the 200 and the 180 ends north the lode is from 6 to 8 feet wide, and in each case worth about 40*l.* per fm. for lead and jack. A very nice improvement has taken place to-day in the 165 north; this end for some little time has been quite unproductive, in consequence of the lode being thrown to the hanging side by one of the small slides so often met with in this part of the mine. The lode is now opened out to about 2 feet wide, good for lead and jack, and I have no doubt, from its appearance, will now again resume its former productiveness; the stopes in the roof of this level are looking exceedingly well. No. 1, north from the rise, is worth 200*l.* per fm.; No. 2, still further north, is worth 100*l.* per fm.; and No. 3, south from rise, is worth 80*l.* per fm. All the stopes in the north ground below this (165) level, are yielding well for jack, but are not rich in lead. The ends driving north and south from the 145 cross-cut are opening out very satisfactorily; the lode in the former is 5 feet wide, and worth 80*l.* per fm.; and in the latter it is 2½ feet, and worth 40*l.* per fm. The lode in the end driving north from the 145 cross-cut is about 3 feet wide, and worth at least 60*l.* per fathom for lead and jack; this end is daily improving. The 130 cross-cut is progressing favourably, and I have no doubt when the lode is intersected the result will be equally satisfactory. The lode in the end driving north in the 110 is 5 feet wide, and worth 200*l.* per fm. The end driving south from the junction is worth 50*l.* per fm., and improving; the rise in roof of this level is worth 160*l.* per fathom; and the stopes north of the rise are worth 200*l.* per fm. This is a most interesting and valuable discovery, and augurs well for the Dumbeils and Agneash Mines. At Dumbeils the main sump is now down to the 70; the lode is 8 feet wide, and worth 60*l.* per fm. The horse of rock, which for some time past has continued in the middle of the vein, is fast wearing out, and I think in about another fathom sinking will entirely disappear, when, I have no doubt, a decided improvement will take place. We shall suspend the sinking of this sump for a short time at the end of this month, for the purpose of cutting lodge and sheathing the sump, when it shall at once be resumed, and with much greater facilities. We have holed the sump from the 50 to the 60, by which means we have secured the necessary ventilation for continuing the sinking of the main sump, and shall at once proceed to sink another below the 60 for the same purpose, which will be started in a good lode of lead. The stopes in roof of the 45 are worth about 30*l.* per fm. The lode in Agneash shaft, sinking below the adit level, is about 2 feet wide, saving work for lead and jack. At Snafell there is no change to notice.

GREAT NORTH DOWNS.—J. W. Crase, M. Jenkin, May 28: In consequence of a slight accident having occurred to the pitwork in Vivian's engine-shaft in the past week the sinking has been a little retarded. The lode in the 57, driving west of engine-shaft, is worth 10*l.* per fm. The lode in the 57, during east of Jenkin's shaft, is worth 6*l.* per fathom. The ground in the 57 cross-cut, driving south of engine-shaft, is spare for driving. Pendarve's lode in Rule's shaft, sinking below the 40, is 4 ft. wide, worth 8*l.* per fathom. At River shaft, sinking below the 60, in the past week the lode has very much improved in appearance and value; the south part that is being carried, 4 ft. wide, is worth 20*l.* per fathom, and promising for further improvement. The lode in the 57, driving west of River shaft, is 6 ft. wide, producing saving work for copper ore. There is no change in Sleggan's shaft or the 50 cross-cut, north of River shaft, for the week. Our pitwork is at present in good working order, and the operations are carrying on satisfactorily.

GREAT NORTH DOWNS.—J. W. Crase, June 1: The lode in River shaft has improved since my telegram sent you; at present it is worth 30*l.* per fathom, and has a good and lasting appearance.

GREAT RETALLACK.—W. H. Reynolds, May 31: We are making fair progress in driving the adit level east, and have about 10 fms. to reach No. 6 shaft, which is down to the depth of the adit level. We have commenced No. 7 shaft, about 45 fms. further east, which we shall sink down to the depth of the adit level, from which point we purpose driving east and west, that no time may be lost in getting up the adit to the old mine.

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, June 2: In our further openings on the north and south lodes the lode looks exceedingly well, presenting the same favourable characteristics as before. There is nothing new to report on the other lodes. We are making better progress in the adit; the ground is improved. We have two parties driving towards each other, and expect to communicate with the last shaft sunk by the latter end of this week, when the adit will be immediately driven southward. We expect shortly to drive 30 fms. per month instead of 20, which we are now doing.

GREAT SOUTH TOLGUS.—J. Daw, June 1: In the rise in the back of the 154 the lode is split into two or three parts, worth 9*l.* per fathom for tin. In the stopes east of the winze, in the back of the 154, the lode is worth 12*l.* per fathom for tin. In the the stopes west of the winze, in the back of the 154, the lode is worth 12*l.* per fathom for tin. In the winze sinking below the 125, on the tin lode, the lode is 3 ft. wide, worth 5*l.* per fathom for tin. In the 100, east of Noel's shaft, the lode is 2 feet wide, composed of mundic, spar, and peach—a very promising lode. In the 90 east, on north lode, the lode is 1 ft. wide, producing stones of copper ore.

GREAT WHEAL BADDERN.—J. Jenkin, May 28: The tribute pitches are turning out to expectation, and the men working on regular. The machinery, surface, and dressing operations are progressing satisfactorily.

GREAT WHEAL BUSY.—J. Edwards, John Petherick, William Trelease, May 28: We have commenced sinking Harvey's engine-shaft below the 140, by twelve men; the lode is about 2 feet wide, worth from 18*l.* to 20*l.* per fathom for the length of the shaft (14 feet). No lode has been taken down during the past week in the 140 fathom level, west of Harvey's engine-shaft. The lode in the 140, east of said shaft, is 2½ feet wide, producing good stones of copper ore, and letting out a quantity of water; here we expect to meet with the cross-course in 2 or 3 fathoms more driving, when we expect an improvement. The lode in the rise against Fielding's shaft, in back of the 140, is 2 feet wide, worth 18*l.* per fathom for tin. No lode has been taken down in Offord's shaft since last report. We have resumed the sinking of Fielding's shaft below the 130; the lode is 2 ft. wide, producing good stones of tin. We have suspended the sinking of No. 1 shaft, in the bottom of the 130, east of Offord's, in consequence of water. The lode in the 130, east of said shaft, is 18 inches wide, producing saving work for tin. The lode in the 130, driving west of Fielding's shaft, is unproductive. No. 1 stope, in back of the 130, east of Offord's shaft, is worth 12*l.* for tin and copper ore. No. 2 stope, in back of this level, is worth 25*l.* per fathom. The lode in the 70, driving east of Mathew's shaft, is worth from 10*l.* to 12*l.* per fathom for tin.

GRYLLS CONSOLS.—W. H. Richards, June 2: Everything is progressing very satisfactorily. We are push

wide, worth for tin 6*l.* per fm.; and when communicated will lay open a good piece of tin ground. In the 20 cross-cut south no lode has yet been met with. The stopes and pitches are without alteration.

GWYDYR PARK.—William Smyth June 1: We have taken down the lode in the stopes in back of Gwydyr adit this week; it is full as good as last time; there are some lumps of lead 2 cwts., nearly solid. The stope east of the rise is looking better than it has been, and likely to improve; it is looking better now than the western stope did at the same height; re-set to six men, at 60s. per fm. In gossan end we have met with a branch going across the end, which has heaved the lode altogether; so I put the men to cut in north, to see if we can find it; I do not think it is far off. I do not know yet whether this is the east and west lode we have cut or not. We have about 4 fms. more to drive on the gossan lode to get under Newton's shaft, which I expect will drain the same, and allow us to sink directly. We have about 35 fms. more to drive the adit end west, Owen's north and south lode being the great object for which this adit was commenced; and the east and west lode we are driving on is about 6 in. wide, but open, and letting out water. Although the country is hard and spare for driving, we may have better ground, and I think the old working on Owen's lode will be unwatered before we get direct under them, so that we shall be able to sink from their old workings in what is stated to be a very productive lode. I may add we shall not be in want of air this winter to drive the adit to Owen's lode. We shall sample 10 tons of lead ore immediately.

HALLENBEAGLE.—J. Edwards, E. Richards, May 28: The eastern shaft is now complete to the 36, on Wheal Rose lode, and shall commence to draw from this point on Monday next; no time will be lost in clearing the said level east and west. We find the old workers have sunk in the bottom of the 36 in several places as deep as the water will permit; this level is now dry, but a quantity of slime is lying in the bottom, which we hope to be able to clear in the coming week; there is every indication of good ore ground, judging from what has been taken away. The old engine-shaft will be complete for drawing below the 14 in the coming week, when we shall clear the said shaft as fast as possible. The steam whim-house is up and covered in, and shall commence fixing the engine on Tuesday next. We shall set more tributers to work in the bottom of the 36, on the north lode, in the coming week, and hope to have the tributers in full operation in course of a fortnight from this time. All the surface operations are progressing satisfactorily.

HARWOOD.—J. Race, May 30: At our setting, the level in the plate at Scar Head was set to two men, at 60s. per fm. The end of the drift east in the vein is set to two men, at 42s. per fm., worth ¼ ton of ore per fm. Stope No. 1 in the vein is set to two men, at 36s. per fm., worth ¼ ton of ore per fm. Stope No. 2 is the same price, worth only 8 cwts. of ore per fm. The trough low level is set to drive north at 60s. per fm.; this level is now completed, and I shall have the work drawn by a horse. I expect an improvement in the mine soon.

HAVAN.—E Jones, May 24: Eastern Mines: The lode in the 10, west of Carriston's shaft, is hardly so valuable for lead ore as when I last reported, now worth about 10 cwts. per fm., with a very promising appearance, and I hope will improve in a little further driving. The 10, east of ditto, is worth about 15 cwts. per fm., and improving. The lode in the 10, driving west of No. 1 winze, has much improved, worth full 3 tons of lead ore per fm.; this end is driven 4½ fms. through a fine course of ore, and will be communicated with the 10 east in about three weeks, and thoroughly ventilate the bottom of the mine, when we propose to resume sinking Carriston's shaft for a 20 fm. level. No. 1 stope, east of Carriston's, on the back of Seton's adit, is worth about 18 cwts. of lead ore per fm. No. 2 ditto is holed to old workings, and suspended. No. 3 ditto is worth about 25 cwts. per fm. The stopes, west of Carriston's shaft, is suspended, the men being engaged at surface cutting water-course. In the cross-cut south there is a branch of spar and carbonate of lime running towards the lode, and letting out a good deal of water, from which we believe that the lode is not far off.—Western Mine: The deep adit level is being driven by four men; the lode in the forebreast looks kindlier for producing mineral than any of the ground formerly driven through.

HAWKMOOR.—J. Richards, May 31: Owing to the dry weather, and consequent scarcity of surface water, the wheels are unable to keep the mine in fork, and, therefore, the stopes are for the time suspended, the lode being worth from 2 to 3 tons of copper ore per fathom. No. 3 lode in the adit level, driving west, is of large size, composed of capel, quartz, and mundic principally; a branch from the south side, about 6 in. wide, appears to be coming in towards the lode, which I hope will improve it. In about three weeks from this I hope to get ready about 1 ton of tin ore for sale.

HOLLOW MARSH WOOD.—John Vercoe, June 1: Our engine-shaft is complete to the 15, with dividings, casings, and footway; we commenced driving our cross-cut last week to intersect the lodes, and have something like 10 fathoms to reach the great copper lode. The ground is everything that can be wished for, a beautiful soft clay-slate, highly mineralised. In sinking the engine-shaft four branches were met with, all of them producing copper; one of them, about 18 inches wide, was rich, and forty winze kibbies of good copper ore was raised from it, and specimens can now be seen at the office, 28, Cornhill, which are well worthy of inspection. These four veins are underlying north towards the great copper lode, which is from 8 to 12 feet wide, and great things are expected at this point when the lodes are cut; we anticipate this will be accomplished in a month from this time. The pumping-machinery now on the mine is a water-wheel, and it is not expected any steam-engines will be required for a long time, as there is ample water-power. This is a great saving, and the mine can be worked cheap, compared with other mines where steam-power is employed. This mine is the property of three or four Cornish gentlemen, who are working it quietly, hence very little is heard or known of it except by those interested.

KELLY BRAY.—G. Rowe: Saturday last being our monthly setting-day, the following tutwork bargains were let:—The 70, east from engine-shaft, to drive by six men, stent 2 fms., at 11*l.* per fathom; at this point there is another branch, containing spar, mundic, and a little ore dropping into the lode from the south side. These branches, previously alluded to, appear to influence the main part of the lode, which is now composed of hard capel and quartz, accompanied with good stones of ore. The 60 cross-cut to drive north, by six men, stent 2 fms., at 10*l.* per fm.; the ground in this direction is at present hard and slow of progress, in consequence of it being mixed with spar, which we deem but temporary. The 40 east on the north lode, to drive by four men, stent 2 fms., at 5*l.* per fm.; the lode at this point is divided by a horse of killas, and both parts are at present small and unproductive. The 25, east from the western shaft, is for the time being suspended, and the men employed to work upon the lode some short distance behind the present end, and below the level, at 2*l.* 5s. per fm.

LADY BERTHA.—Capts. Harpur and Metherell, June 2: In the 53, east of shaft, the lode is about 3 feet wide, composed of quartz, mundic, peach, and stones of ore. The lode in the 53 west is over 3 feet wide, consisting of quartz, capel, mundic, and ore, worth 1 ton of the latter per fathom. In the rise above the back of this level we are nearly up to the winze below the bottom of the 41; as soon as communicated we hope to have some ore ground to take away. In the 41 east the lode is about 1½ foot wide, composed of peach, quartz, mundic, and sprigs of ore; the ground is favourable for driving. The 30 east is without any particular change to notice, composed of small branches of quartz, peach, and mundic. In the cross-cut, driving north from the 10 east, the ground is moderately easy for exploring. The eastern shaft is about 8 fms. below the 30; ground being much the same in character as for some time past. The tribute pitches continue to yield much the same as usual.

LANIVET.—J. Tregay, May 31: Vance's Lode: The lode in Oulton's shaft produces good stones of tin, and the horse of granite getting smaller; we expect it to disappear altogether in sinking, and effect an improvement; this shaft is rather hard for sinking, which is being done by nine men, at 14*l.* per fm.—Purser's Shaft: The new shaft west is producing good stones of tin; sinking by six men, at 4*l.* 10s. per fm. Douglas shaft has been set to sink by two men, at 7s. 6d. per fathom.—Tregay's Lode: We are getting ready the bob-pit for pumping at Petrie's shaft; until this is done we cannot sink deeper; this will be pushed on as rapidly as possible.

LANTWIT VARDRE COLLIERY.—E. Francis, May 30: Our progress during the past fortnight is all that could be expected. In my last report you saw that we were obliged to fix some temporary air-pipes down the drift to enable us to work from the lower east heading, to meet and form a permanent passage with the new air-drift coming down from the surface for the complete ventilation of the colliery. I am glad to say that we have succeeded so far that a communication is effected; henceforth the prices for driving headings, stalls, &c., will not exceed more than one-half of what has been paid. We have raised during the past fortnight 100 tons of coal; our boilers consumed 60 tons, leaving 40 tons discharged into stock, in addition to 70 tons left last fortnight, and increases our stock on bank to 110 tons. The appearance of the coal in the several stalls we are now opening looks favourable.

LEEDS AND ST. AUBYN.—J. Curtis, May 20: Setting Report: The 30 to drive east of the flat-rod shaft by four men, at 2*l.* per fm. The 30 to drive west of the flat-rod shaft by four men, at 2*l.* per fm. The rise in the back of the 20 to hole by six men, at 3*l.* per fm. The winze to sink below the 20 by two men, at 1*l.* 10s. per fm. Vivian's flat-rod shaft, on Paull's lode, to sink below the adit by six men, at 7*l.* per fm. The adit to drive east of the new shaft by two men, at 20s. per fm., and 10s. in 1*l.* tribute. We have 19 men on tribute, varying from 3s. to 18s. 4d. in 1*l.*

LONG RAKE.—F. Evans, June 1: The shaftmen have all but finished cutting the lodge at the 80, and the sinking of the engine-shaft below it will be resumed in a day or two. The 80 west has been stopped for a short time until the lodge is completed in the roof of the latter; we have a pitch working at 5*l.* 10s. per ton. The 80 east produces stones of lead. The 70 east is not so well as last reported, still in a large lode, with occasional stones of lead. The pitch behind this end is working at 2*l.* 10s. per fm., and is a fair price on the side of the men. The 60 east is worth ⅛ ton per fm.; the lode is rather spare for driving. No alteration to notice in the other pitches in the mine. We shall sample for next week's sale 25 tons of lead ore of good quality. The mine improves as depth is attained, and this we shall carry out as fast as possible.

MERLLYN.—Wm. Sandoe, May 31: The lode in the 20, north of shaft, continues to produce a mixture of lead ore, 5 cwts. per fm., and looks kindly. The stope in the back of this level is rather poor for lead at present, but I expect an early improvement. In the driving west from the 20, on the new branch, we have a little lead, and I think it will improve as we get off the influence of the great lode. The lode in the winze sinking below the 20, at Victoria shaft, is about 2 ft. wide, composed of spar, clay, &c., with a mixture of lead ore. Everything connected with the mine is being pushed on as vigorously as possible. I hope to prepare a small parcel of ore for the next week's sale.

MINERA UNION.—W. T. Harris, June 2: Brabner's shaft is now completed to the 80 yard level, and plat cut for depositing the stuff. A level has also been commenced to drive north on the course of the lode to follow the footwall side, and in which we are getting some good stones of lead. We shall also drive forward the old level in the hanging side of the lode, from which good returns of lead are expected to be made.—William's Shaft: The lode in the 40 yard level east has much improved, at present worth 15 cwts. per fm., and very promising for a further improvement. The pitches are without alteration to notice.

MOLLAND.—T. Bennett, June 1: The lode in the 62 east has become settled and compact, being about 2½ ft. wide, producing good stones of grey ore, and presenting a promising appearance. It has not been heaved an inch out of its regular course by the slide. The lode in the rise in the back of this level is large and hard, producing from ⅛ ton to 1 ton of grey ore per fm., set to six men to rise 1 fm. at 9*l.*, and to drive in the end at 6*l.* 10s. The stopes in back of the 42 east are producing 1 to 1½ ton of ore per fm., set to four men, 2 fms., at 3*l.* 10s. per fm. The stopes in the back of the north part of the lode, in the 32 east, where we were stoping last month, having become poor, I have removed the men a little further west, where the lode is large, and will produce 1 to 1½ ton of ore per fm., set to four men, 2 fms., at 3*l.* 10s. per fm., cubic measure.

NANGILES.—J. Rowe, May 31: We have cut through the south lode in the bottom of the engine-shaft; it is 4 ft. wide, mixed with killas, mundic, and copper ore, worth for the latter 35*l.* per fm. We are sinking on the north lode, which is producing good stones of copper ore. The stopes east of the engine-shaft, above the 96, are holed to the 90. The ore is rising in going east of the shaft. These stopes are worth 16*l.* per fm. The stopes in bottom of the 96, east of the shaft, are worth 20*l.* per fm. No change in the 96 west; ground favourable for driving. We have about 4 fms. more to drive to get under Bread and Cheese winze. The tin stopes and pitches are producing average quality tinstuff.

NANTY.—May 30: The following bargains were set on Saturday last:—The roadway level to drive north of boundary, by four men, at 4*l.* per fm.; the lode here is 4 ft. wide, but at present unproductive. The stope over this level, 90 fms. north of boundary, is set to six men, at 2*l.* 2s. per fm.; the stope over ditto, 40 fms. north of boundary, is set to six men, at 2*l.* 2s. 6d. per fm.; the stope over same level, 30 fathoms north of boundary, is set to six men, at 2*l.* 7s. 6d. per fm. These stopes are yielding, on an average, 11 cwts. of lead ore per fm. We have started a rise over the roadway level, at a point about 35 fms. north of boundary, in order to communicate to the shallow adit level above, to prove the ground, where the chances of opening fresh runs of ore ground are favourable; set to six men, at 5*l.* per fm.; the lode here is 4 feet wide, and will produce 13 cwts. of ore per fm. The lode at the 10 fm. level, north of boundary, is large and of promising appearance, now producing good saving work; set to six men, at 4*l.* per fathom. The stope over this end, 50 fathoms north of boundary, is set to four men, at 2*l.* 10s. per fm.; the stope over this level, 80 fms. north of boundary, is worked out to the level above. The deep adit level, going north of boundary, is in a lode 4 feet wide, and of a more promising appearance than of late, now showing strong spots of lead ore, and likely for further improvement; set to six men, at 4*l.* 10s. per fm. The stope over this level, 60 fms. north of boundary, is set to six men, at 2*l.* per fm.; this stope, and the stope over the 10 fm. level, north of boundary, is yielding 11 cwts. of ore per fathom. We have set a drift to drive south from the top of the rise over the deep adit, 50 fathoms from its entrance, to open out under the ore ground seen in the roadway level; set to four men, at 3*l.* 15s. per fm. The cutting down and widening the roadway level is progressing favourably; set to six men, at 4*l.* per fm. The dressing, &c., with all the other surface work, is going on favourably.

NANTEOS.—R. Williams, June 1: The sinking of the shaft is proceeding, and we expect to communicate with the adit level about the end of this month; the lode continues to produce some good stones of ore; when the communication is made we shall sink under the adit, and hope to see our prospects improve. The lode in the adit end is disordered by a cross branch, and for the present is unproductive, but there are signs of composure appearing, and with it we expect an improved lode.

NETHER HEARTH.—W. Vipond, May 30: There is no change to notice in the end of level in cross-cut vein; the ground is hard, but we shall, probably, have the plate-box at the bottom in another week, which will make a great difference in cost and speed of driving. We have not cut anything yet in driving from the old shaft.

NEW CHIVERTON.—J. Juleff, jun., May 28: The winze sinking below the 10, east of eastern shaft, is now improved to 20*l.* per fm., and a very kindly looking lode. In the 20 east the lode is large, and producing good stones of lead. We have not yet intersected the 20 end in clearing west of cross-cut. There is a good channel of ground in sinking the engine-shaft below the 30. We purpose to commence laying out the dressing-floors next week.

NEW CROW HILL.—W. Trelease, May 31: In the bottom level, or 55 east, no lode has been taken down for the week; the ground by the side of it is good, carrying strings of ore, and the lode close to the end is still very wet. No. 1 stope, in back of the 55, is now above the 45, and rather poor, although showing good stones of ore. No. 2 stope, in back of the 55, is not looking so well, worth about 3 cwts. per fm. No. 3 stope, in back of the 55, is worth 12 cwts. per fm. No. 4 stope, also in back of the 55, further east than the last stopes, is worth 5 cwts. per fm.

NEW EAST RUSSELL.—J. Gifford, May 31: In the deep adit west the south part of the lode, on which we are driving, is 3 feet wide, and very promising, yielding good stones of copper ore. The last 10 feet taken down yielded full 3 tons of good quality copper ore, but not so good in the present end.

NEW ROSEWARNE.—E. George, W. Mitchell, June 1: The lode in the 74, west of Phillips's shaft, has improved in appearance, producing a little tin, but not to value. The lode in the 74, west of Bickford's, has improved since our last report, now worth 55*l.* per fm. The lode in the same level east is 2 ft. wide, producing good stones of copper ore. The lode in the 67, west of Bickford's shaft, is 2 ft. wide, worth 10*l.* per fathom. The stope in back of the 67, west of Bickford's, is worth 10*l.* per fathom. The stope in bottom of the 58, west of Bickford's, is worth 10*l.* per fm. The stope in bottom of the 58, east of Bickford's, is worth 2*l.* per fm. The lode in the rise in back of the 68, west of Bickford's, is 4 ft. wide, worth 6*l.* per fm. The lode in the winze sinking under the 46, west of Bickford's, is 3 ft. wide, worth 6*l.* per fm.

NEW TRELEIGH.—Samuel Michell, May 27: To-day being our tutwork and tribute setting, we beg to hand you the following particulars:—The 90 fm. level, to drive west of Carr's engine-shaft, by four men, at 6*l.* 10s. per fm.; the lode in the end is 2 ft. wide, with good stones of ore in it, and presenting a favourable appearance. This end is extended from shaft 6 fms. 1 ft. The 80 is driven west of shaft 13 fms.; the lode in the last 6 fms. driving has increased from 1 to 2½ ft. in width, and, judging from indications, we may reasonably expect an increase of ore in this end shortly; now driving by four men, at 5*l.* 15s. per fm. A stope in the back of this level, east of the shaft, by four men, at 4*l.* per fm. This was a piece of ground refused by tributers to work at 12s. 6d. in 1*l.*, and for the last 4 fms. stoped we have from 13 to 14 tons of ore, moderate quality. We have two other stopes working in the bottom of the 70, east of the shaft, by four men, one at 3*l.* and the other at 3*l.* 10s. per fm.; these stopes will pay very well. The 70, to drive west of the cross-course, by two men, at 6*l.* per fm.; this level continues very wet, but when the cross-course is intersected in the 80, so as to drain this level, there is no doubt of this very materially affecting the dispatch of driving the end—I should say fully one-half. The cross-cut south, in the 70, to drive by four men, at 6*l.* 15s. per fathom. There is no change to notice here. The cross-cut north in the 60, west of the cross-course, set to two men, at 6*l.* per fm.—Good Fortune: The 80 to drive west by six men, at 10*l.* per fm.; the lode here is 3 ft. wide, and discharging a great deal of water. We have a lode in the 70, west of Symonse's shaft, for 2 ft. high in the end, and from 16 to 18 inches wide, ore; and, very strange to remark, we have driven 6 or 7 fms. over a lode of this character, which has scarcely exceeded 2 ft. above the bottom of the level. A winze to sink below the 50, west of Symonses shaft, by four men, at 5*l.* per fm.; this winze is worth 7*l.* per fm. The tribute pitches were four—three at 13s. and one at 12s. 6d. in 1*l.* We are getting around all the ore that we possibly can for sampling, and our machinery, &c., all working very satisfactorily, and the water in the mine has fallen off a little, as you will see by the consumption of fuel.

— June 1: The ore in the 70 end east, at Symonse's shaft, is higher up in the level to-day than I have before seen it, and by all appearance will go further up. There is nothing worth mentioning further to-day throughout the mine.

NEW WHEAL MARTHA.—H. Rickard, June 2: The ground in the engine-shaft below the 74 is favourable for sinking; we have a branch about 10 in. wide dipping south towards the lode, composed of fluor-spar and mundic, producing good stones of copper ore of good quality; this augurs well for a productive lode when cut into at the 86. The lode in the 74, both east and west of the engine-shaft, has a very kindly appearance, producing stones of ore, but not to value. The stopes in the bottom of the 52 are much the same as last week, worth about 10 tons per fm. No change in any other part of the mine. All the machinery is in good working order, and doing its work well.

NEW WHEAL ROSE.—J. Middleton, J. Hammill, jun., June 2: During the last week we have driven west from the north and south lode about 6 feet, but as yet cannot state whether it is the east and west lode, previously alluded to, or a part of the north and south lode; we are, however, continuing our course west, and are glad to say we still have a leader of lead, with every favourable indication of a productive lode when deeper operated on. In the eastern end we have met with a branch of mundic coming from the west, which when it intersected the eastern part of the north and south lodes produced, and still continues to do so, good stones of lead, and the ground is much easier for driving.

NORTH BASSET.—G. Davey, June 1: Main Lode: In the 112, east of Grace's shaft the lode is 1 ft. wide, producing stones of tin. In the 112 east the south part of the lode is 1 ft. wide, composed of spar, mundic, and stones of copper and tin ores. In the 112, west of Grace's shaft, the lode is 2 ft. wide, yielding low quality work for the stamps. In the 92, west of Grace's shaft, the lode is worth 8*l.* per fm. for tin.—South Lode: In the 102 west the lode is 4½ ft. wide, composed of spar, peach, gossan, and tin, worth 4*l.* per fathom. In the winze under the 102 the lode is 3 ft. wide, worth 6*l.* per fathom for tin.

NORTH BULLER.—R. Pryor, Henry Harvey, May 28: The lode in the 100, east o engine-shaft, is 5 ft. wide, composed of mundic, peach, and spar, with good stones of copper ore, and a little tin intermixed; this end is extended east of shaft about 16 fathoms, and is still letting out an immense quantity of water; driving by four men, at 12*l.* per fathom. The 100 cross-cut is being driven south of the shaft about 18 fms., and has just passed through a branch, to the south of which we have an increase of water. The end is composed principally of spar, impregnated with spots of mundic, blende, and copper ore, and has been very spare for driving, in consequence of its letting out such a quantity of water; driving by six men, at 15*l.* per fm. The 78 is driven east of shaft 30 fms., and at present suspened, the men being engaged in sinking a winze, which is down below the level about 4 fms., where the lode is 18 in. wide, producing stones of rich copper ore. The sinking of this winze should be pushed on with all possible speed, to communicate with the level below, in order to give ventilation to these two points, which are now very close, in consequence of only one shaft; sinking by four men, at 8*l.* per fathom. The lode in the 80, west of cross-cut, on King's north lode, is 2 ft. wide, composed of mundic, spar, and prian, with stones of copper ore. We consider that this end of late has undergone a favourable change since we met with a leader of prian on the footwall of the lode; driving by four men, at 7*l.* 10s. per fm. In conclusion, we beg to say that, looking at the chances we have still before us—the extending of the 100 cross-cut south towards East Basset, to intersect two parallel lodes which are known to exist in this direction, together with the prospects of the other two before-named lodes, which have from time to time produced some little rich squats of copper ore, our opinion remains unaltered; and by continuing on the present mode of working we shall meet with that success which will pay the adventurers for their outlay.

NORTH CHIVERTON.—J. Hampton, June 2: We have completed and set to work the horse-whim on the new engine-shaft, by which all the stuff is drawn up, a horse being always in the whim. The ground in the shaft is all that can be desired with regard to speed and promise; the country is impregnated with mineral, including spots of lead. The stope on blende look as well as they ever did, and we only wait the working of the engine to begin extensive operations on this and other lodes. The engine and other machinery, including balance-bobs, flat-rods, pitwork, &c., are all being put together as fast as possible.

NORTH LAXEY.—John Horsley, June 1: The water is in the shaft, and increasing every day on account of the dry weather, so that the wheel is going very slow for want of water; the water has never been so little in the river as it is at present since the miners commenced to work: we have about 15 ft. of water in the shaft. The shaft is down 11 feet below the 60; the lode in the shaft continues strong and kindly looking, made up with spar and rider, and good lead mixed through the lode from one end of the shaft to the other. The north end is as good as the south end in bottom of the shaft; the lode is nearly 3 ft. wide, and worth 2 tons per fm. The lode in the 60 end is not altogether as good as it has been; the end is worth about 1 ton per fm., made up of much the same nature as the lode in the shaft; the lode is about 2½ ft. wide. The end is driven from the shaft 4 fms. The shaftmen have been working last week in the roof of the 60; they are now making a ladder-road up to the top of the new shaft, and getting it in order to draw the work up to top of the shaft. I expect we shall soon get the water out of the shaft again, if a little rain would come to help the wheel. We are getting on with the surface work as quick as possible. The new wheel is completed; we are now removing the drawing-machine to the new wheel, and then we will have to remove the crushing-mill, which will require about two months to finish all the work.

NORTH MINERA.—J. Dunkin, June 2: We shall complete the eastern shaft to the 45 by the end of the present week, and shall commence to cut ground for the plat at this level. The ground in the cross-cut, driving north at the 25, is very favourable for producing lead ore. In the winze sinking under the 15, west of the eastern shaft, the joint still holds down good, with a good leader of lead ore in the same.

NORTH POOL.—J. S. Phillips, James Pope, May 30: The carpenters have placed the woodwork of engine-house in position for the masons to cover with slate. The masons are building stack and balance-beam stand at engine-shaft, and will cover the house forthwith. The smiths are forging the work for engine's balance-beam, and bolts for horizontal rods to pump from Ballarat shaft. Surface labourers are cutting passage for these rods, raising building stone, ridding foundation for boiler-house, and assisting engineers and pitmen fixing the engine and pitwork for pumping from both shafts. The adit level is being driven east by four men, on No. 1 lode, north of engine-shaft, at 5*l.* per fm.; the lode is still yielding occasional stones of copper ores. The adit level is being driven south-east from this shaft, to south lodes and towards Ballarat adit, at 5*l.* per fm. The shaft is being sunk below the adit, and bearers of cistern by horse-whim, and the water is just sufficient to supply the masons, so that unnecessary haste of erection will be of no advantage for sinking.

NORTH SHEPHERDS.—H. Bennett, May 31: Decimus engine-shaft is sunk 5 fms. 5 ft. 6 in. below the 15 fm. level, in ground very favourable for the production of lead ores; the branch cut in the cross-cut is not yet met with in the shaft. The 15 fathom level cross-cut is driven 10 fms. 4 ft. 6 in. north of the engine-shaft, but no lode cut today. We have met with a small branch dipping north, which I have every reason to think will fall into the lode, as the ground is changing for the better. The lode in the adit level is 10 in. wide, composed chiefly of flookan and lead; in the last 6 feet we have met with some good stones of lead. On the north end we are driving west. At the 16 fm. level the lode is 2 feet wide, producing good gossan and lead; this lode will be met with in the adit level in driving a short distance, and there remains no doubt in my mind that when the intersection is made good deposits of lead will be found.

PEDN-AN-DREA UNITED.—Wm. Tregay, T. Delbridge, J. Thomas, May 31: Sump: The lode in the bottom of this shaft produces good stones of tin. In the 120, east end, the lode is poor. In the 120, east end, the lode is poor. In the 120 west we have reached the cross-course, and as it will not be desirable to put through the same and let down the water from the ground beyond, until the cistern is fixed in engine-shaft at the 120, we have suspended this end until that is complete. We believe the 120 east winze, is now sufficiently drained to resume the sinking, and have set it to ditto accordingly. In the 110, west end, the lode is worth 6*l.* per fm. The 110, west winze is worth 7*l.* per fm. In the 100, east end, the lode is small, producing good quality tinstuff. The 100, west end, is worth 5*l.* per fm. The 90, west end, on Martin's lode, is worth 8*l.* per fm. The 90, west rise, on Martin's lode, is worth 6*l.* per fm. The 90 west, on engine lode, produces good stones of tin.—Cobbler's: The lode in the bottom is worth 9*l.* per fm. The 90 east, on Skinner's lode, is worth 12*l.* per fm. The 90 west, on Skimmer's lode, is worth 4*l.* per fm. The 68 east, on Skimmer's lode, is worth 15*l.* per fathom. The 68 west, on Martin's and Skimmer's, is worth 15*l.* per fm. We sold on Thursday a parcel, computed 22 tons of copper ore, at 6*l.* 6s. per ton.

PENHALLS.—W. Higgins, J. Nance, May 28: The ground in the engine-shaft has assumed a more settled appearance, and the men are now making greater speed in sinking. We have cut through the Downright lode in the 50 cross-cut, north of shaft, and find it poor, but in the end there are branches of tin, underlying north, which induces us to drive some few more feet. In the 50, driving east of this cross-cut, the lode is 3½ ft. wide, worth 8*l.* per fm. We have not yet cut the lode in the 40 cross-cut, south of the shaft, but its appearances are still as favourable, as the water is on the increase. The lode in the 30, driving east of this shaft, is 15 in. wide, and not to value; a great point in driving this level is to communicate it with the flat-rod shaft, when our heavy surface flat-rods will be done away with.—Flat-rod Shaft East, North Lode: In the 10 fm. level, driving east of cross-cut, the lode is 18 in. wide, worth full 8*l.* per fm. In the 10 west of cross-cut, we have not yet met with the lode, but are daily expecting to do so. The stopes in back of ditto are again begun from the back of the level, and worth 6*l.* per fathom. In the 20, driving west, north of heave, the lode is 2 ft. wide, worth 12*l.* per fathom. The lode in the stopes in back of the 20, south of gossan, is 18 in. wide, worth 15*l.* per fm.; in this level, driving east, it is 2 ft. wide, worth 8*l.* per fm.

PENNANCE CONSOLS.—H. Peters, June 2: At Fox's shaft we have holed the rise from the 10 up to the downright shaft, to bring our rods from the engine to sink upon the south lode; the south lode is about 4 feet wide, and I think, by sinking about 10 fms. deeper, we shall have a rich lode of lead. At present we are stoping the bottom of the 10, west of cross-cut, to prepare for sinking Rosa's shaft. We have holed Rosa's shaft from surface to adit down upon the winze; there is a promising lode in the winze, yielding rich work for lead. We are now cutting down the shaft and preparing to sink. There are about 14 tons of leadstuff drawn to surface, and about 10 tons of tinstuff.

PENTRE LYGAN.—F. Evans, June 1: We are proceeding very satisfactorily with the 40 cross-cut south, and there is little doubt the main lodes will be seen all below the workings during the summer, when discoveries of lead ore may be looked for.

POLBREEN.—May 31: There is very little alteration to notice in the tutwork bargains since last report. Very little of Tregay's lode has been taken down in either of the ends since then. The lode was small in each end when last taken down, but poorly good; and as there are only about 3 fms. of ground between the two ends it is likely we shall hole it before we take down the lode; when that is done it will enable us to judge much better what the ground is likely to be. There has been nothing done in the 12 cross-cut north since last report, as we wanted the men to clear attle and take down a piece of lode in the 12, at sump, so there were only 3 ft. driven for the month. We have again set it to drive a little by one man and one boy, at 5*l.* per fm. There are now two pitches set in the 12, on Tregay's lode; the old pitch, by six men and boys, has a little improved, now set at 7s. 9d. in 1*l.* We have set a new pitch also in bottom of the same level, between the old pitch and the end, to four men, at 4s. 6d. in 1*l.*

POLHIGEY MOOR.—T. Bennetts, June 1: The lode has been cut through at the 10, where we find it very large, somewhat disordered by a small branch crossing it, and in value much the same as it was at the shaft in the level over—from 3*l.* to 4*l.* per fm. No lode has been taken down in the 20 west since last reported, except a soft part, 3 in. to 6 in. wide, on the south wall; this has proved very good work. In the 20 cross-cut north no lode has been met with as yet.

PRINCE OF WALES.—Wm. Gifford, May 3: Saturday being our setting-day, the following bargains were set:—To drive deep adit east, on Good Luck lode, by four men, stent the month, at 5*l.* per fm. To sink Watson's shaft by nine men, stent the month, at 16*l.* per fm. To draw all stuff from deep adit east, on Good Luck lode, for two months, at 7s. 6d. per fm. To draw all stuff from Watson's shaft, for two months, at 9s. per fm.

PROSPER UNITED.—S. Lean, W. H. Martin, June 2: The lode in the 80, west of Louisa's shaft, is 1 ft. wide—unproductive. The lode is No. 2 winze, sinking below the 70, will produce 1 ton of ore per fathom. The lode in the 80 east, north of the stream, is 18 in. wide, composed of spar and mundic. The lode in the 80 west is 9 inches wide, containing saving work for tin. The lode in the 70 west is 2½ ft. wide, of a kindly appearance for copper. The lode in the 60 west is 1 ft. wide, containing some good copper ore, but not sufficient to value. The lode in Hill's shaft, sinking below the 70, when last taken down would produce 2 tons of ore per fathom, but is suspended in consequence of an increase of water. The lode in Hand's shaft, sinking below the 60, will produce 2 tons of ore per fathom. The lode in the 70, east of Hosking's shaft, is 3½ feet wide, worth 8*l.* per fathom for tin.

REDMOOR.—T. Taylor, June 1: The masons are getting on with the engine-house as fast as possible. We have taken out the engine, and the greater part removed. I am going to weigh off the tin to-day.

RIALTON EAST WHEAL ROSE.—H. Hill, May 31: We have cleared up the level on the Mill lode, and fine two winzes sunk about 4 ft. deep, and the lode has every appearance of producing great deposits of lead at a deeper point. I am proud to say I broke some good stones of lead myself therefrom on Saturday last; the lode is about 1½ wide, underlying east about 2½ ft. per fm., with two good walls, producing beautiful quartz, prian, and good stones of lead only about 3 fms. from surface; this lode is considered to be Middleton's, or the main lode in the East Wheal Rose; this I consider to be our main lode. We have commenced further south-west to open out in low ground to drain the surface water, to see the lode further south to decide where to commence a permanent shaft to further prosecute the mine.—Eastern Lode: We have sunk the south trial shaft about 5 fms. deep, on a very kindly lode, producing good gossan, quartz, prian, mundic, &c. In consequence of the water being in the bottom of the level we have suspended the sinking for a time. On the whole, we are looking all that can be desired for good deposits of lead, with a moderate outlay.

ROARING WATER.—Capt. Thomas, May 31: The men are getting down with Gilman's shaft satisfactorily, in a good looking elvan, and branches of spar, &c. I have offered a premium of 1*l.* 10s. if the last contract of 5 fms. is sunk in two months, in addition to the contract price. In the last three or four days we have passed through a bar of elvan in the cross-course driving south from Grady's shaft; the present end is in a beautiful white killas. We are pushing on this as fast as possible, and hope soon to cut the lode. I expect the chain will be here next week, when Grady's whim will be put to work, after which the shaft will be resumed sinking on the course of the lode. The ground in the end driving east from the caunter level, towards Gilliman's shaft, is just the same as for some time past. By the time Gillman's shaft reaches the 20 the whim will be ready to draw water and stuff from this shaft.

ROBOROUGH DOWN.—S. Pauli, May 28: We have cut into the north quarry lode at the 20 from Truscott's engine-shaft, and I am happy to say that so far as we have seen into it it is everything I could wish; so far as cut into, 5 feet, it is composed of capel, quartz, peach, mundic, and tin, and no appearance of the south wall; from the size and character of the lode at surface and at the trial shaft, I do not anticipate we shall do so till from 4 to 6 feet more ground is driven; the character of the lode so far as seen is firm, and possessing every feature requisite to constitute a tin-bearing lode in every sense of the word, and the fact of there being good paying ground opened upon at surface, and splendid work now being broken at the 20, is quite enough to stamp this mine as one opened up with every prospect of success. Newton's pitch, at the junction of the great quarry and north quarry lode, is without alteration, no lode having been taken down since last report. The stope to the west of trial shaft is producing some excellent work, and bids fair to be a continuous lode 4 feet 6 in. wide, composed of peach, capel, quartz, mundic, tin, and a small portion of iron; nothing can show a more favourable appearance than the lode does in this place, and this, coupled with the discovery made in the 20, lays open years of labour on a tin-producing lode. The engine is near completion, and other surface operations in good and forward condition; and now that most of our preliminary expences are gone into, the future bids fair for that success so much desired by all—a dividend-paying mine.

ROSECLIFF.—J. Philips, May 31: We have at length got to the engine-shaft. The cross-cut from the south lode to the shaft is 4 fms. We must now clear the levels on the east and west lodes in order to ascertain how far they are driven. We shall then be in a position to commence active operations.

ROSEWALL HILL AND RANSOM.—E. Thomas, June 2: The lode in the 130, west of the sump-shaft, is 4 to 5 ft. wide, and as yet has no wall; worth quite 60*l.* per fm., and ground very easy for driving. The other parts of the mine are just the same as when last reported.

ROSEWARNE CONSOLS.—T. Uren, J. Berryman, June 1: Good progress is being made in sinking Ellen's shaft below the 70, and the appearance of the lode is of a most promising character. In the 70, east of Ellen's, the lode is 18 in. wide, yielding a little copper ore. In the 60, east of Ellen's, the lode is worth 28*l.* per fm. In the 50, east of Ellen's, the lode is worth 30*l.* per fm. Nothing new on the caunter lode since last report.

ROSEWARNE UNITED.—T. Richards, E. Carthew, June 2: The engine-shaft is sunk 5 fms. below the 40; the lode is 15 in. wide, containing stones of black copper ore. The lode in the 40, west of the engine-shaft, is 18 in. wide, composed chiefly of quartz and a little peach. The lode in the 40, east of the engine-shaft, is containing stones of mundic and yellow copper ore. The lode in the 30 west is unproductive. The lode in 20, east of the engine-shaft, is 18 in. wide, composed of quartz and peach. Boundary shaft is sunk 7 fms. below the 10, and is producing good stones of grey copper ore. The pitches are looking much the same as for some time past.

SILVER VEIN.—E. Burn, June 2: The sump-shaft is sunk 7 fms. 1 ft. below the 50. The ground is a blue killas, congenial for mineral, and looks kindly for the next level. In the 50 north the lode carried in the end has improved; it is worth at present about 8 cwts. of fahlers per fathom. In the 50 east the ground is much easier for progress. In the 50 south the lode is 3 ft. wide, composed of flookan and soft quartz, spotted with ore, but not enough to save. In the 40 north we have a cross branch, which has disordered the lode in the present end; I expect it will get properly settled again after driving a few feet, and be found productive, as it has hitherto been. The tribute pitches in this level will produce from 1½ to 2 tons of fahlers per fathom. We have let two pitches since setting-day—one at the 30, to two men, at 12s. in 1*l.* The new whim-shaft is down 3 fms. below the 30; the lode is 2 ft. wide. We divided and sampled yesterday at Par Quay (computed) 50 tons of ore.

SOUTH BULLER.—J.

ground. In the 24 west the lode is small. In the 36 east the lode is 1¼ ft. wide, composed of spar and occasional stones of ore. In other parts no alteration to notice.

SOUTH CRENVER.—E. Chegwin, May 31: In the adit end, driving east and west of cross-cut, the lode is 9 in. wide, spar and spots of mundic, and the ground more favourable for driving.

SOUTH EXMOUTH.—J. P. Nicholls, J. Maunder, June 1: We have intersected more branches of the east lode in the 75 cross-cut, and the ground has in consequence been spare for progress; but, however, we hope we have got through all of them now, and shall be enabled to make much greater progress. The lode in the winze sinking in bottom of the 60 is 2¼ ft. wide, consisting of friable quartz and spar, yielding a small quantity of lead, and presenting favourable indications for soon becoming much more productive; the ground about the lode is very soft and congenial. The lode in the 60 north is 3 ft. wide, consisting of white iron, quartz, and barytes, interspersed with spots of lead and blende. In the 60 south a cross-cut is being driven west to ascertain if there is any more lode in that direction, and the ground is very favourable for progress. The 45 south is being driven on the west lode, which is from 4 to 5 feet wide, consisting of quartz and barytes, thickly impregnated with mundic; this end is presenting favourable indications for an early improvement. The lode in the 45 north is the entire width of the level, composed of white iron, quartz, and barytes, yielding occasional large stones of lead; the rise in back of this level is communicated with the 30, and both levels well ventilated; the lode in the latter consists of gossan, thickly spotted with lead; a better back of a lode cannot be found, and which we think cannot fail to make large quantities of lead in depth. All parts of the mine, with the machinery on it, are in good order.

SOUTH GORLAND.—J. S. Phillips, May 30: The 40 has been re-set to be driven west, by three men, the lode being still large, and unusually promising for increased quantities of copper ores before breast, in the completely unexplored western ground. The shaft has been risen about 19 fathoms above the 40 fathom level, which has lessened the water in the western whim-shaft sufficiently for its being sunk to meet this rise, and it has been set at 7l. 10s. per fathom, to be sunk by a horse-whim from surface. I have granted permission to two speculative tributers (who are desirous of expending their labours for six months in sinking a shaft on the main lode some 200 fathoms east from the present workings), to raise tin at 13s. 4d. in 1l.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, May 28: Setting Report: The adit level to drive west, by four men, at 2l. per fm.; the lode is 18 in. wide, of quartz, prian, and gossan—a very kindly lode. The ground in the adit cross-cut south is harder than it was, and we have re-set it to four men, at 14l. per fm. We have not yet intersected any lode, but we are expecting to do so.

SOUTH WHEAL TOLGUS.—Yourem's Lode: At Michell's engine-shaft, sinking below the 140, the lode is 18 in. wide, composed of mundic, peach, and spar. The lode in the 140 west is 3 feet wide, composed of mundic, peach, and quartz. In the 130 west the lode has not been taken since last reported. We are obliged to stop sinking the winze in bottom of the 130 west, in consequence of an increase of water. Our stopes over the 130 west are without alteration since last reported. In the 120 west the lode is 15 in. wide, composed of peach, mundic, and stones of ore. The lode in the 120 west, driving east of the cross-cut, on the north part, is 1 ft. wide, producing stones of ore. In the 110 west the lode is 4 feet wide, consisting of peach, killas, spar, and mundic, and letting out a quantity of water. The lode in the rise over the back of the 100 west is 1 ft. wide, unproductive. In the winze sinking below the 90 west the lode is small and poor. The ground in the 78 cross-cut is hard.—South Lode: In the 140 east we are cross-cutting south. The lode in the 130 east is 20 in. wide, composed of killas, white iron, and quartz. The lode in the 120 east is 4 feet wide, producing 1 ton of ore per fm. In the winze sinking in the bottom of the above level, the lode is 2 feet wide, producing 1 ton of ore per fm. The lode in the 110 east is 15 in. wide, unproductive. In the 100 east the lode is 18 or 20 in. wide, looking more promising, producing stones of copper and tin ores.—New South Lode: In the rise over the 78 the lode is 1 foot wide, producing good stones of ore; opening tribute ground.

ST. DAY UNITED.—E. Ralph, J. Cock, Chas. Oates, May 28: Opie's engine-shaft, sinking below the 184, is worth 50l. per fm. In the 184, west of Billing's, the lode is a little disordered, worth, however, 12l. per fm.; we are of opinion that it will improve as we get near the cross-course. The 174, west of Billing's, is worth 15l. per fm. We have communicated this end with the winze sunk below the 164. In the 164 end west the lode is 3 ft. wide, worth 12l. per fm. The winze sinking below the 154, to communicate with this end (the 164), is worth 10l. per fm. The 154 end west is producing good stones of tin, with a very kindly appearance. In the 134 end, west of Trussell's, the lode is large, and producing saving work for tin. In the 124, west of Trussell's, the lode is worth 12l. per fm. We are still pushing on the cross-cut at this level to cut the copper lode, and believe we are near the intersection of the same, as the end is letting out an increase of water. Richard's shaft, sinking below the 130, at Bissoe Pool, will be communicated to the 140 in the course of next week. East Wheal Maid is looking just the same as last reported, and the stopes throughout the mine are looking very well. We hope to put our new winding-engine to work in a few days.

ST. IVES WHEAL ALLEN.—J. Bryant, June 2: The lode in the winze below the 10 west is worth 3l. per fathom. The winze below the 10 east is worth 4l. per fathom. The 20 west is driving through the cross-course. The 20 east is worth 7l. per fathom. The winze below this level is worth 4l. per fathom. The stope below level is worth 4l. per fathom. The stope in the back of the 30 is worth 4l. per fathom. The lode in the 40 east is 1 ft. wide, producing a little tin. The carbona in the 20, east of Giesler's, is worth 8l. per fathom. The carbona in Charles Frederick's is worth 5l. per fathom.

ST. JUST CONSOLS.—Wm. Williams, June 1: We have holed our 10 to the winze west of Casley's shaft; the lode in the end is 18 inches wide, producing some very good stones of tin. The Guide lode has very much improved going east. I am glad to say we are looking better than ever.

ST. JUST UNITED.—J. Carthew, June 1: The report of last week having contained all particulars as to our operations, and no change of importance having subsequently taken place, there is nothing new to communicate, other than that we have cleared the 50, east of the engine-shaft, to the end: the ground here will work at a good profit. We have also holed the rise from the back of the 40 to the 35; we shall now, with good advantage, be able to take away the large quantities of tinstuff remaining in the level, and also to work the tin ground under favourable circumstances. The 62, east and west, and the stopes over, are much the same as last reported. The 50 end, east of the winze, is worth 6l. per fm., and the end west 7l. The tribute pitches are looking well, and turning up good quantities of stuff.

TIN HILL.—C. Martyn, June 1: The engine-shaft is now down 10 fms., and we have some water, but not to value; the ground is a very rich mineralised killas. We have intersected two branches on Draper's; both are rich for tin. We are driving east and west on No. 3 lode, where we have some capital work for tin. The tributers' pitches are looking well, and the stamps are turning out some good tin. We are busily engaged in getting the new smith's shop complete for the smith to commence working. Everything is going on very prosperously.

TRELOWETH.—T. Richards, June 2: In the sump-winze sinking below the 144 the lode is worth 35l. per fm. The 144 end, driving east of sump-winze, is worth from 8l. to 9l. per fm. The 144, driving west of sump-winze, on the north part, is worth 10l. per fathom. The 134, east of sump-winze, is worth 4l. per fm. The 124 end, east of sump-winze, is worth 8l. per fathom.

TRENCROM.—W. Arthur, H. Woolcock, May 26: The lode in the 110, east of Hollow's shaft, is 14 in. wide, containing a little tin. The lode in the 100, east of Hollow's, is 14 in. wide, worth 3l. 10s. per fm. The lode in the 90, east of Hollow's, is 1 ft. wide, worth 3l. per fm. The lode in the 80, east of Hollow's, is 15 in. wide, with occasional stones of tin. There is no change in the 70 and 60, east of Hollow's, since last reported. The lode in the 50, east of Hollow's, is 18 in. wide, worth 4l. per fm. The lode in the 40, east of Hollow's, is 18 in. wide, saving work for tin.—Fat-rod Shaft: The lode in the 60, west of the above shaft, is 1 ft. wide, worth 3l. 10s. per fm.

TRENCROM.—W. Arthur, H. Woolcock, June 2: The lode in the 110, east of Hollow's shaft, is 15 in. wide, with a little tin. The lode in the 100, east of Hollow's shaft, is 1 ft. wide, saving work for tin. The lode in the 90, east of Hollow's shaft, is 15 in. wide, worth 3l. per fathom. The lode in the 80, east of Hollow's shaft, is 15 in. 16 in. wide, worth 3l. per fathom. The lode in the 70, east of Hollow's shaft, is wide, producing saving work for tin, and with improved appearance. The lode in the 60, east of Hollow's, is disordered by a horse of granite. The lode in the 50, east of Hollow's, is Hollow's, is 1 ft. wide, saving work for tin. The lode in the 40, east of Hollow's, is split by a 14 in. wide, yielding a little tin. The lode in the 40, east of said shaft, is 10 in. horse of granite in it.—Fiat-rod Shaft: The lode in the 60, east of said shaft, is 10 in. wide, worth 3l. per fathom. The lode in the 60, west of the above shaft, is 1 ft. wide, worth 4l. per fathom.

TRIMLEY HALL.—A. W. Thomas, June 2: Being disappointed in not having received the fly-wheel shaft from the foundry, we are unable to put the engine to work yet, but hope to do so shortly.

TRUMPET UNITED.—G. R. Odgers, May 28: The lode in the 60, west of engine-shaft, is 1 ft. wide, tinny—a very promising lode, and from its appearance we have every reason to expect an improvement. The lode in the 50 west is 10 in. wide, looking very kindly—saving work. The lode in the 25 west is small. The lode in the 15 west is 8 in. wide, worth 8l. per fm. The lode in the stope below the 15 is worth 7l. per fm. The lode in the stope above the 15 is worth from 8l. to 10l. per fm. The lode in the new shaft is worth 8l. per fm.

TYWARNHAILE.—J. Nicholls, J. Daw, J. Hall, June 2: In the 100, west of Gardner's shaft, the lode is 4 ft. wide, composed of spar, mundic, and spots of copper ore, and letting out water freely. The stopes in the back of the 100 will yield 3 tons of ore per fm. The 50 east end kindly, and will produce ½ ton of ore per fm. The winze in the bottom of the 50 is looking a little better, prodncing saving work. The 40 east is poor. The stopes in back and bottom of the 40 will yield 1 ton of ore per fm. The 90, east of James's end, is looking a shade better, and will now produce 1 ton of ore per fm. The 90 west is producing stones of ore, but not to value. The winze in bottom of the 80 will yield 4 tons of ore per fm. The stope in bottom of the 80 will produce 3 tons per fm. The 80, west of Hayne's lode, is producing stones of ore. The 20, west of Wheal Fanny shaft, is not looking so well, now producing saving work. In the tribute department no alteration.

VALE OF TOWY.—A. Waters, T. Harvey, May 31: In the 124, north of Clay's engine-shaft, the lode is full 6 ft. wide, barytes, carbonate of lime, lead ore, and blende, of a promising character. The 124, south of shaft, is improving, and from the water which has to-day made its appearance we may expect a larger and better lode soon. In the 100, south of said shaft, the lode is 3 to 4 ft. wide, yielding over 2 tons of blende per fm. Field's shaft is 10 fms. below the 100; the lode in the bottom and end worth 2 tons of blende per running fathom; we purpose sinking 4½ ft. deeper, and then commence the 100 north and south. In the 100, driving south of Field's, the lode is 3 ft. wide, opening tritute ground; we purpose pushing the end forward into the south part of the sett under the great deposit of barytes, by way of trial, and think the blende will, at all events, pay the costs. Our tribute department yielding rich blende in good quantities.

VIGRA AND CLOGAU (Gold).—J. Remfry, May 31: Jenny's Adit: No alteration has taken place in the ground since my last. Our ventilating apparatus has been so far completed as to enable us to carry on our workings uninterruptedly.—Eliza Adit: I am sorry not to be able to give you any favourable account of the boring-machine, which I have now stopped, according to your instructions, and have set the bargain to four men at the same price; the ground being very hard does not admit of a deduction.—Cottage Adit: We have not yet intersected the lode in this adit, no favourable change having taken place since my last, the ground being much the same for driving.—Eastern Level, St. David's Deep Adit: Up to May 23 the lode here continued of the same favourable appearance as last reported, since then a decrease in the width has taken place; but, judging from the present ground, it will again soon widen out. No. 2 shaft below deep adit has been sunk 5 fms. 4 feet 2 in.; a level was commenced westward at a depth of 5 fathoms to develope the ground under our rich stope; this is being carried on as fast as possible; the lode itself presents a most kindly appearance. We had but four heads working, and since then, up to this morning, have been quite at a standstill, but to-day have been able to work eight heads after last night's rain. We commenced on May 11 to stamp the first of 100 tons of ore from the Vigra old burrows; up to the present 76½ tons have been passed through, and as soon as completed a statement of result shall be forwarded. The trial of the north lode has been completed, which gives the following result—from 10 cwts. 3 qrs. 7 lbs. ore 6 dwts. 11 grains, equal to about 12 dwts. per ton; altogether, surface operations are progressing as favourably as can be expected. Gold received at the office since last reported, May 14—21 ozs. 17 dwts. 2 grs., from 1 ton 6 cwts. 2 qrs. 13 lbs. ore.

WEST BASSET.—W. Roberts, June 1: The lode in Thomas's shaft continues 7 ft. wide, and is producing good stones of ore occasionally.

WEST BEAM.—W. Hosking, June 2: In the 55, north of Parry's shaft, the North Beam and new north lode are productive of ore and fair for tin. The great improvement in the character of the ground about these lodes at this depth, leads me to expect good results as to the future. The pitches on the North Beam lode in this level are also yielding good work for tin. We are driving cross-cuts in the 45, the 65, and the 76, to intersect the same lodes as are cut in the 55—a matter of great importance to the laying open the mine; the channel of ground in this direction being similar to that very congenial and productive stratification on and about the lodes in the 35 and upper levels. Our operations on the different parts of the mine are going on satisfactorily, and our tribute pitches continue to yield their usual supply of tin. Brothers engine-shaft is sunk 3½ fms. below the 40; the ground continues of that same congenial character as noted in my previous reports. There is no alteration to notice in the ends in the 40, either east or west; the stopes in the back of this level east are yielding good work for copper. We sold on May 20, 9 tons 12 cwts. 2 qrs. 23 lbs. of tin ore, realising 615l. 9s., and have also sent off a small parcel of copper ore, of good quality, which is not yet sold.

WEST CLOGAU (Gold).—J. Remfry, May 31: No material change has taken place underground since my last.—River Adit: We are still driven on the lode by two men: ½ ton of the present stuff has been calcined. We shall to-morrow commence working the same in Britten's, and as soon as finished particulars, &c., shall be forwarded to you.—Warrington Adit: No change since last reported on, the ground being still hard, and we have yet some fathoms to drive before reaching the lode.

WEST CONDURROW.—Edwin Hosking, May 31: I am glad you have suspended operations in the western part of the mine, and have commenced working with more spirit in the eastern part, where I think there is a much better prospect. Your engine-shaft is sunk about 8 fathoms below the 62, where the lode is very small and poor, unshaft is sunk about 8 fathoms below the 62, where the lode is very small and poor, underlying fast, and having no indications for mineral. The 62 is driven east of engine-shaft about 30 fathoms, and the lode, like that in the shaft, is very poor. The 36 is in granite, and though the end at present is poor, I think there is a much better prospect ahead. The 24 is extended east of cross-cut to Bickford's shaft about 24 fathoms; this end is in killas, but I think it is looking much kindlier than when I saw it some three months since. Having recently inspected Carn Camborne Mine, and seeing that they are opening up a promising concern there, I recommend you to drive the adit 24 and 36 fathom levels towards that mine with all speed, at the same time drive cross-cuts north and south to cut the lodes that are north and south of Killivose lode. I see at Carn Camborne they have very promising lodes, that will turn out about 1½ to 2 tons of copper ore per fathom; these lodes will run through West Condurrow Mine to the south of Killivose lode. Having this prospect before you, I recommend a vigorous prosecution of the eastern part of the mine, sink Bickford's shaft (which is about 220 fathoms east of Killivose or engine-shaft), with all speed, this being done, you will ventilate your mine, and be in a much better position than you are at present; and I think the eastern ground to be a much better speculation than the western part of the mine.

WEST GREAT WORK.—Sam. J. Reed, June 1: Paull's engine-shaft is now down 5 fathoms below the adit, but from a great increase of water we are unable to go deeper until the engine is set to work, which will be about 10 days from this time. The ground in the cross-cut, south from the new shaft, is now more favourable for driving, and, judging from previous intersections here, I think we are near the lode; much water issues from the end. The stope on No. 6 lode, west from the new shaft, has improved, and is now worth 9l. per fathom. The new, or No. 3 lode, driving west from the cross-cut, is producing saving work for tin, with a favourable appearance. No. 2, or Gregory's lode, driving west from Paull's engine-shaft, is 15 in. wide, worth 4l. per fathom. Our surface operations continue to progress satisfactorily. The last parcel of tinstuff sold amounted to 55l. 19s. 9d.

WEST GRYLLS.—J. Curtis, J. White, June 2: Setting Report: The 40 to drive east of the cross-cut by four men, at 2l. 15s. per fm. The 40 to drive west of the cross-cut by two men, at 1l. 15s. per fm. The winze to sink below the 40 by six men, at 3l. per fathom. Hosking's shaft, to sink below the 15, by four men, at 3l. per fm. Pearce's shaft, to sink below the 10, by two men, at 2l. 15s. per fm.; we have eight men on tribute, at 11s. in 1l.

WEST NANTY.—May 30: In the adit level, west of the cross-cut, we are cutting through the lode, and have driven a cross-cut south, near the present end, 10 feet; we are not through the lode as yet. The lode here is letting out a great deal of water, but without any ore at present; we intend carrying on this cross-cut until we are properly through the lode. The shaft is nearly completed to the deep adit level, and we hope to commence driving the adit east of cross-cut in about a week or nine days, and also purpose sinking again below the adit level as quickly as possible. The masons are making good progress with the walls for the slides, and we are also putting up the new pumping-wheel, which will be completed soon. Good progress is being made with the new road; it has been fine weather for such work, and we have about 30 men on it, all on contract.

WEST WHEAL MARTHA.—H. Rickard, June 2: We cannot do anything at present in the 50, west from western shaft, in consequence of the water being in, and from the scarcity of surface water there is not the least chance of our forking again. We have no lode as yet in the 40 fm. level cross-cut, but the ground is highly mineralised. The ground by the side of the lode at the 40, west from Kelly Hole, is improved for driving, the lode showing spots of ore. The lode in the north adit level is 5 ft. wide, composed of mundic, spar, prian, and a little peach—a very promising lode at such a shallow depth. The tribute department is much as usual.

WEST WHEAL TOLGUS.—June 1: Taylor's sumpmen are making very good progress in sinking Taylor's engine-shaft below the 65 fm. level; the flookan part of the lode is dropping down more to the right. In the 65 fm. level west we have put three men to drive south in search of the lode. Rule's stope over the back of the 65 fm. level is producing 3 tons of ore per fm. John's stope over the back of the 65 is yielding 2 tons of ore per fm., and Terril's stope is yielding 2 tons of ore per fm. We have taken the men from the 59 west, and have put them to draw out the water from the winze sunk about 3 fms. below the 50 fm. level, on the north lode. We want to sink this winze, if possible, to communicate with the rise from the back of the 65. In this rise the lode is smaller than when last reported—now about 18 in. wide, producing 1½ ton of ore per fm. The ground in the 50 fm. level cross-cut north is moderately easy for driving.

WEST WHEAL TREVELYAN.—G. R. Odgers, J. Harris, May 27: Setting Report: The 68 west, to six men, at 6l. 10s. per fm.; the lode is from 3 to 4 ft. wide, of quartz and prian, with good stones of ore, and letting out a quantity of water—a very kindly lode, and where we have reason to expect an improvement. The 68, east of Charles's shaft, to six men, at 7l. per fm.; here the lode is 4 ft. wide, and in the back of the end there is a good stone of ore; this is getting back under where we had a good lode in the 58. We have set two pitches to four men, at 13s. 4d. in 1l.

WEST WHEAL VOR.—J. Southey, June 1: The engine-shaft is sunk about 7½ fms. from surface; still rather unfavourable for sinking, but looking at the character of the ground in the adit level, we may shortly expect a change for the better. The shaft on Metal lode is down 5 fms.; we have re-set it to sink by four men, at 2l. 5s. per fathom. The masons are getting on with the engine-house satisfactorily; we hope to have it up in readiness for the engine against the time appointed.

WHEAL AGAR.—W. Roberts, May 30: The following list of tutwork bargains was set on Friday last:—Driving the 110 cross-cut, south of Windstow shaft, by nine men, at 17l. per fathom. Driving the 100 cross-cut, east of western shaft, by six men, at 9l. per fathom. Driving the 100 cross-cut, east of Windstow shaft, by four men, at 5l. per fathom. Sinking winze in the 100 cross-cut, east of Windstow shaft, by four men, at 4l. per fathom. Driving the 90 cross-cut, west of Windstow shaft, by two men, at 6l. 10s. per fathom. Driving the 90 cross-cut, south of Windstow shaft, by four men, at 4l. 10s. per fathom. Driving the 90 cross-cut, east of western shaft, by four men, at 5l. per fathom. Driving the 90 cross-cut, south of western shaft, by four men, at 10l. per fathom. Sinking the whim-shaft below the 90 fm. level, by six men, at 7l. per fathom. Driving the 90, east of whim-shaft, by four men, at 5l. per fathom. Driving the 80, east of whim-shaft, by four men, at 5l. per fathom. Sinking winze in the 80, on Dobree's lode, by four men, at 5l. per fathom. Driving the 60, west of cross-cut, by two men, at 5l. 10s. per fathom. Driving the adit, east of whim-shaft, by two men, at 7l. per fathom. In the 100, east of the western engine-shaft, the lode is 2 ft. wide, with occasional stones of ore. The 90, east of ditto, produces stones of good ore; the lode is 1½ ft. wide. In the 80, east of the old whim-shaft, the lode is 4 ft. wide, chiefly composed of spar, with stones of ore occasionally. The 110 cross-cut, at Windstow shaft, although hard for driving, has drained the level above, and we are now preparing to sink a winze in the 100, where the lode is 3 ft. wide, producing good ore and saving work for tin. In the 100 east the lode is 3 ft. wide, composed of spar, peach, mundic, blende, and stones of copper ore—a very promising lode.

WHEAL CARADON.—J. Brown, May 30: In the 70, east of Crutwell's engine-shaft, the lode is full 3½ feet wide, composed of mundic, spar, capel, and spots of ore. The same remarks are applicable to the 70 west. In the 60, east of engine-shaft, the lode is a little improved, being about 2½ feet wide, composed principally of mundic, peach, and spar, with stones of copper ore. The 60 cross-cut south, and east of engine-shaft, is in a good channel of ground, and the men are making good progress in driving. In driving the 30 cross-cut, north of the trial shaft, in the past week, we have intersected several branches, producing mundic, blende, and copper ore; the present end is still letting out water freely.

WHEAL CREBOR.—J. Gifford, May 31: The shaftmen are now engaged in cutting plat in bottom of the 96. In the 96 west no lode has been taken down for the month, but shall begin to take it down the latter part of the week. In the 96 east the lode is 2¼ ft. wide, of a kindly appearance, now yielding 1 ton of copper ore per fm. In the 84 east the lode is 2½ ft. wide, yielding 2 tons of copper ore per fm. In the winze sinking in bottom of the 84 east the lode is 5 ft. wide, yielding full 5 tons of copper ore per fm., worth 25l., and daily improving. The stope in back of the 84 east produces 2½ tons per fm. In the 72 east we are driving by the side of the lode. The stope in back of the 72 east is yielding 2 tons of copper ore per fm. I am happy to say that the mine never looked more promising than at the present time since operations were commenced by the present company.

— J. Gifford, June 2: In the winze in bottom of the 84 east the lode is improved to 6 ft. wide, yielding 6 tons of copper ore per fm., or in value 30l. per fm.

WHEAL EDWARD.—Geo. Rowe, May 28: The lode in the 105, west from engine-shaft, is 2 ft. wide, principally composed of spar, capel, and mundic, spotted with ore. The lode in the 92 west is 5 ft. wide, composed of spar and capel; the north part, about 18 in. wide, is thickly impregnated with ore. We have resumed sinking the winze below the 81, where the lode is 2½ ft. wide, worth 2½ tons of ore per fm. The lode in the 61 west is 18 in. wide, producing capel, mundic, and a little ore. There is now an increase of water percolating through the chasms of the rock, which we hail as a good indicator at this point, under the impression of coming in contact with a known cross-course, where an improvement may be expected. The new south lode, in the 50 west, is at present small and unproductive; we are now cross-cutting north some short distance behind the end to ascertain if any part of the lode is gone off in that direction. The lode in the stopes in the back of this level east is worth 1⅛ ton per fm. No other change. The last sampling of ore weighed off 84 tons 2 cwts.

WHEAL EMMA.—T. Bennett, May 28: The stopes in the bottom of the 70 will yield 1½ ton of ore per fm.. but we cannot draw the stuff, owing to our top water being decreased from the dry weather. The 46 west is not looking so well as when last reported, but the ground has changed lately, and has become more favourably for driving. The winze below the 34 will yield 1 ton of ore per fm. The 22 east is yielding 1 ton of ore to the fm., and looks very promising for further improvement. We have resumed the driving of the 34 east, hoping to meet with some good ore ground ahead of us. We have driven through some small branches in the 34 fm. level cross-cut south, where we think the lode is split up, and have, therefore, discontinued the cross-cut. We shall drive on one of the branches some little distance, as from the size and appearance of the lode in the adit it seems worthy of a trial.

WHEAL ESTHER.—T. Rouse, June 1: This property is in the parish of Cardenham, bounded south by the Great Treveddoe Tin Mine. Its being a tin locality has been proved to the greatest satisfaction in ancient as well as modern days. The stent, or refuse of ancient workings, referred to in former reports, has yielded from stamping it tin of the best quality; this being brought from the summit of the hill, and on the back of the junction which forms the strata, we have every reason to believe that a large amount of tin is deposited underneath. This sett divides itself in the middle by a deep valley, where lodes have been discovered running each side into these hills, which from experience is congenial for tin. The western side of this valley we have driven an adit cross-cut, and intersected a lode, which may be known as Pascoe's lode; we have driven 11 fms. on the course of this lode, which on the average is from 5 to 6 ft. wide, composed of prian, peach, spar, and capel, and have found it to be well worthy of stamping, but has considerably improved in the last 4 fms. In the cross-cut before named, 3 fathoms from the lode, we drove through a branch 1½ to 2 ft. wide, running 20° west toward the lode; we expect this in the end in a fathom or two, as our lode has strong indications of the same; this lode varies somewhat in bearing from the others, so that we have three parallel lodes coming into it from the present end to the killas stratum, which must be a promising sign of its ultimate success, and shall continue this end with all possible dispatch. On the No. 3 lode we have four men stoping the back; this lode is very much improved, and shall drive the end as soon as we can spare the men. We have other lodes that are of equal importance, but thus far our attention has been confined to the two named. We shall sample on Friday next, but shall not have time to dress all our work. Our stamps are in good condition, and, considering the dry weather, are doing good duty. At East Esther I have been a day or two proving the lode, and find it to be good work, and from its present appearance any quantity may be raised; this being on the eastern side of the Tor, our object is to open it on the western side, which will be within a few fathoms of our present stamps, where we intend to drive an adit on the course of the lode, and are making preparations for the same.

WHEAL ESTHER.—J. Richards, June 2: Since my report of May 17 my recommendations have been carried out in reference to pushing on Pascoe's and No. 3 lodes, the result of which is that three times as much tin is producing from Pascoe's lode as they proceed westward; it is also reasonable to expect this, in consequence of the great altitude of the hill, as well as approaching the junction of two lodes, which are not far ahead, where we may reasonably anticipate good results to follow; in fact, taking it altogether, in a geological point of view, any miner would say that great riches will be obtained.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, June 2: We have got into the lode in the 120 fm. level, 2 ft., and which is of precisely the same character as it is in the upper levels, producing a little tin, but not to value. We are getting on very satisfactorily with the 110 cross-cut north, in which we find branches of spar, &c. We have holed the shaft from the 80 to the 66, consequently we shall shortly commence rising above the latter level towards the shaft sinking from surface. The new stamps are working very satisfactorily.

WHEAL GRYLLS.—E. Rogers, J. Pope, June 2: Fisher's Lode: In the 40 end, driving east of Annie's engine-shaft, there is a little improvement; the lode is 6 in. wide, worth 3l. per fm. In the 30 end, east of flat-rod shaft, the lode is also improved, worth at the present time 10l. per fm. In the 15 end, driving west, there is no alteration; the lode will just pay for driving. In the two ends on the Standard lode there has been no lode taken down since last reported on.—Georgia Lode: In the 30 end, north of the Georgia engine-shaft, the lode is worth 4l. per fathom; but the end is suspended for the present, and the men put to rise in the back for ventiliation. The lode in the rise is 18 in. wide, producing work of a coarse quality.

WHEAL HARRIETT.—S. Williams, May 28: There is no change to notice in the 130 north cross-cut. The north part of the main lode, in the 115 west end, is 6 in. wide, unproductive. The north lode, in the 115 west end, has improved in appearance, now 1 ft. wide, composed of spar and mundic, spotted with copper ore, and water is issuing very strong through the lode. The stope west from winze, below the 100, is worth for tin 10l. per fm.—Alexander's Lode: In the 24 west end the lode is producing good stones of copper ore. The lode in the deep adit end is unproductive. The north lode, in the adit east end, is producing stones of copper ore.

WHEAL HEARLE.—J. S. Phillips, W. Wesley, May 26: This being our settling-day, the following tutwork ends and stopes have been re-set for the ensuing month:—The 130 fm. levels, to be driven east and west, at 4l. per fm. each, are large and promising lodes for tin, but not very valuable at present. The 122 east at 3l. 10s. per fm., the 122 west at 3l. 15s., and the 122 cross-cut at 5l. 10s. per fathom, the 110 west at 2l. 15s., and the 100 west at 3l. 10s. per fm. We have four tutwork stopes extending in these levels at an average of 2l. 10s. 7d., which are worth 5l. 5s. per fm. for tin. We sold last Thursday 4 tons 10 cwts. 1 qr. of black tin, which realised 275l. 5s. 3d., and nearly clears our working cost.

WHEAL HOPE.—W. H. Reynolds, May 31: The lode in the shaft is 2 ft. wide, yielding good work for lead. The lode in the 75 west yields good stones of lead, and is of a very promising character. The 65 west, on the south part of the lode, is worth from 12l. to 15l. per fm., and the north part yields good saving work for lead. A winze below this level, to ventilate the level below, is worth 10l. per fm. The lode in the 58 west is also worth 10l. per fm., and looking very promising.

WHEAL KITTY (St. Agnes).—S. Davey, William Polkinghorne, May 28: Engine-shaft, Old Lode: The lode in the 100, east of this shaft, is at present poor. We have suspended the driving of the 72, east of ditto, and west of cross-cut, and put the men to rise in back of this level to hole to the winze in bottom of the level above.—Holgate's Shaft: The lode in the 54, driving west of this shaft, is still improving in appearance, and we believe ere long this will prove a productive lode.—New Shaft, Pryor's Lode: In the 65, driving east of this shaft, lode worth for tin 9l. per fm., and in ditto, driving west, 12l. per fm. In the 54, driving east of this shaft, we have met with another cross-course, which has again moved the lode in this level west of ditto; the lode is showing an improved appearance, now worth for tin 10l. per fm. The lode in the 44, driving east of this shaft, is worth for 10l. per fm., and in ditto driving west 11l. per fm. The lode in the 34, driving east of this shaft, is not quite so good, now worth for tin 8l. per fm. In the winze sinking below ditto the lode is worth for tin 9l. per fm.; the lode in this level, west of shaft, is worth for tin 16l. per fm. The ground in the 24 cross-cut is still hard. The ground at the new shaft is without any material change. Our ribute department is looking most promising.

WHEAL KITTY (Uny Lelant).—W. Williams, June 2: In the general levels and tutwork developments there is no alteration, except in the 70 end, driving west on Gowan lode, from a pitch, where the lode is worth, say, 80l. per fathom.

WHEAL MARGERY.—R. James, W. Rogers, June 2: Wellesley's Engine-shaft: We set on Friday last this shaft to sink, by twelve men, from the 110 to the 120; also to fix a lift, penthouse, winze, and cut all needful ground for bearers and cistern, &c., in one contract, for 300l.; no lode taken down as yet below the 110. In the 110 east the lode is large, and spotted with copper ore, but not to value. In the 70 west the lode continues poor.—American Shaft: In the 132 the lode has not been taken down. In the 122 east the lode is worth 3l. per fm. No. 1 stope, in back of the 122 east, is worth 6l. per fm.; No. 2, ditto, is worth 10l. per fm.; No. 3, ditto, is worth 6l. per fm.; No. 4, ditto, is worth 5l. per fm. In the 122 west the lode is worth 6l. per fm. No. 1 stope, in back of the 122 west, is worth 6l. per fm.; No. 2, ditto, is worth 12l. per fm.; No. 3, ditto, is worth 8l. per fm.; No. 4, ditto, is worth 5l. per fm.; No. 5, ditto, is worth 12l. per fm. In the 110 east the lode is worth 8l. per fm.; the stope in back of the 110 east is worth 6l. per fm. In the 110 west the lode is poor. No. 1 stope, in back of the 110 west, is worth 4l. per fm.; No. 2, ditto, is worth 8l. per fm. In the 100 east the lode is improved, and worth 10l. per fm.; the stope in back of the 100 east is worth 5l. per fm. In the 100 west the lode is worth 2l. per fm.; the stope in back of the 100 west is worth 6l. per fm.

WHEAL MARY ANN.—P. Clymo, H. Hodge, J. Harris, J. Stevens, June 2: Clymo's shaft is sunk 12 fms. under the 190; the cross-cut in this level is extended 13 fms. towards the lode. In the 180 north the lode is 2½ feet wide, worth 7l. per fm.; in the same level south it is 2 feet wide, worth 8l. per fm. In the 170 south the lode is 1¼ ft. wide, worth 7l. per fm.; in the same level, north of Pollard's shaft, it is 2½ feet wide, worth 6l. per fm. The stopes and pitches are producing much as usual. We sampled on May 28 two parcels of lead ores—No. 1, computed, 45 tons; and No. 2, computed, 30 tons, for sale on Saturday next.

WHEAL NORRIS.—J. Andrews, May 28: Carter's shaftmen will complete the cutting of the piat by the middle of next week. The men are now engaged taking down No. 4 lode in the 35 fm. level end, east of Carter's shaft, and have 2 fms. more to strip down to the end; so far as taken down the lode is 3 ft. wide, worth 12l. per fm. No. 5 lode, in the 35 fm. level end, east of said shaft, is from 2½ to 3 ft. wide, producing saving work. The lode in this end has a much better appearance than it had a week ago, and I think as we extend east it will further improve. The ground in the 35 fm. level cross-cut south is without change. In the 35 fm. level cross-cut north we have met with soft ground in the back of the end, and very wet, which has rather improved the progress of driving, but to-day the ground is looking more favourable for going forward. The tribute department is looking very well.

WHEAL PAR.—J. Beard, June 1: Rashleigh's: The lode in the bottom of this shaft produces good stones of tin; the sinking progressing satisfactorily. The 10, east of this shaft, on Thomas's lode, produces tinstuff of good quality; the lode at present small, and ground easy for driving.—Water's New Whim: The 10 east, on Jenkin's lode, is worth 5l. per fm. The 10 west, on Jenkin's lode, is worth 3l. per fm. The 10, east of this shaft, driving west of the east cross-cut, is worth 5l. per fm. The stopes are producing much as usual. No other change to report.

WHEAL POLMEAR.—F. Barratt, jun., June 2: Quarry Lode: The 30 east is producing good stones of copper ore. The 26 west is opening up some productive ground; the south part of the lode above the 15 is worth 10l. per fm. Smyth's lode in the adit level west is from 4 to ft. wide, of peach, mundic, and spar, with some copper ore, and is of a very promising character. The other parts of the mine are without alteration. We are making preparations for sinking Smyth's shaft below the adit level.

WHEAL PROSPER.—S. Mitchell, June 2: There are stains of black copper ore in the cross-cut at the 40 fm. level, which leads me to think it is near the Treworvas lode, and with such good indications, we anticipate a good one.

WHEAL SPARNON.—Wm. Tregay, E. Chegwin, May 28: We are getting on well with the cutting down of the engine-shaft. The masons are making good progress in the building of the engine-house. The present fine weather is very much in favour of our surface work, and good progress is being made accordingly.

WHEAL UNY.—S. Coade, M. Rogers, May 28: Tin Lode: The engine-shaft is sunk 9 ft. below the 110; sinking by nine men, at 30l. per fathom. The 110, west of engine-shaft, is driving by six men, at 10l. per fm.; worth for the part driving on 6l. per fm.; we expect the lode to improve as we get under the tin ground in the 100. The 100, west of incline shaft, is driving by four men, at 6l. per fm., worth 12l. per fm. The 100, east of engine-shaft, is worth 20l. per fm. The 80, west of incline shaft, is driving by two men, at 4l. per fm. The 60, east of Goodinge's shaft, is driving by four men, at 5l. per fathom, worth 8l. per fm.—Copper Lode: No. 3 shaft is sunk 10 ft. below the 68; sinking by four men, at 7l. per fm.; the lode is 1 ft. wide, of a promising character, but not to value. The 68, west of No. 3 shaft, is driving by four men, at 4l. 5s. per fm.; the lode is 1 ft. wide, producing a little ore, but not to value. The 58, west of new engine-shaft, is driving by four men, at 5l. 10s. per fm., worth 5l. per fm. The new engine-shaft is sunk 7 fms. below the 58; sinking by six men, at 13l. per fm.; the lode is worth 7l. per fm. The cross-cut south at the 48, No. 3 shaft, is driven 22 fms. south of lode; driving by six men, at 7l. per fm.

WHEAL VLOW.—J. Tonkin,

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GREAT WHEAL VOR.—The operations at Wheal Metal are again in full course of working. They have commenced to drive the 157, east and west of Ivey's shaft, on a capital course of ore. The 147, east of Ivey's, is looking as well as ever; and the 174, east of Metal, continues to hold on a very good lode. Altogether, the prospects of this mine continue to be very favourable.

EAST TRESKERBY is opening out rich, and is fully expected to become one of the prizes of 1865.

GRYLLS WHEAL MITCHELL.—During the past week one of the most important discoveries for some time in the Marazion district has been made in this property. A shaft is now being sunk on a fine copper lode, and although only about 12 fms. from surface, the lode is 3 feet wide, composed of quartz, gossan, and grey and yellow copper ore, worth of the latter full 50*l.* per fathom. There are also two large tin lodes opened upon, producing rich work for tin. The property has been inspected by several leading mine agents, who are unanimous in their opinion as to its value.

WHEAL CROFTY.—A lode has been cut in the 55 fathom level, driving north, about 18 inches wide, producing good stones of copper ore, and of a very promising appearance. There is also a very good branch of copper ore in the 24 fathom level, west of the cross-course, from 3 to 4 inches wide: this is quite a new feature in the mine, and of great importance.

OKEL TOR MINE has considerably improved of late, and is more than likely to be one of the best dividend-paying mines in the neighbourhood, so that the shareholders will be amply rewarded for their toil and outlay. WEST OKEL TOR is taken up by a company, and going to be worked with spirit; it is a piece of mineral ground well worth the notice of capitalists, as there are numerous fine lodes traversing it, which are very large, and carry as good gossan as can be seen, with rich quality ore only a few feet from surface. No doubt, if fairly developed, it will equal its neighbour, Okel Tor.

TREWOSSICK is a silver-lead mine, situated at St. Columb Minor, about four miles north of old East Wheal Rose. Five lodes of great promise—two east and west, and three north and south—traverse the sett. If carried out with economy, the mine is likely to prove a first-class paying mine. The lodes have every indication of opening up great deposits of lead, being composed of beautiful sandy spar, gossan, prian, and lead. All that is required is a moderate amount of capital and economy in working.

AT GREAT SOUTH CHIVERTON the workings are being pushed on with all speed, day and night, with double pares of men. The ground is also more favourable for driving: in future they will drive 30 fms. per month instead of 20. The lodes at the north part of the sett present the most favourable appearance, and no doubt is entertained of having a mine equal to its rich neighbour.

EAST CARN BREA.—The recent discoveries are very important. The new lode cut in the 26 fm. level cross-cut south is now being driven upon east and west, worth each 80*l.* per fm., driving at 3*l.* per fm. This great discovery has every appearance of proving permanent. The 30 fm. level, driving east of western shaft, has also got in it a course of ore worth from 50*l.* to 60*l.* per fm.

CLOWANCE WOOD.—Whilst on a visit to Crowan, I was greatly struck with the position of Clowance Wood Mine, and was pleased to see that the adventurers are determined to give it an effective trial. The captain, who appears to be an intelligent man, informed me that he had the management of the underground workings five years ago, and that the lodes are in appearance such as to justify the most vigorous prosecution of the mine. I was much surprised to find a piece of ground in so rich a district so long unexplored.

SITHNEY CARNMEAL UNITED.—The 16 heads of stamps will commence working in about three weeks from the present time, and shortly after monthly returns of tin will be made.

COOMBE VALLEY CONSOLS (Lead) has recently been inspected by Capt. Blamey, of the North Devon Silver-Lead Mine, at Combmartin, and other agents, whose reports will shortly appear in the Journal. The analogy between the two mines is very striking. On coming up from underground, Capt. Blamey said, in the presence of all the men, that it was one of the most promising lead lodes he had ever seen, and that the ore, the matrix of the lode, and the strata exactly resembled those of Combmartin. An engine, of not less than 50-in. cylinder, will shortly be placed on the mine; but, by bringing the water on the top of the wheel, and changing the pit-work, the mine can be kept in fork by the steam-engine now on the works, until the lode has been cut at the 30, and this will be done while the large engine is in course of erection.

NORTH DEVON MINES.—A splendid specimen of silver-lead ore, raised from the mines of the North Devon Mining Company, is at present lying for the inspection of those interested at the offices of Mr. William Ward, 29, Threadneedle-street, the London representative of the company. The weight of the stone is nearly 700 lbs., and it consists almost entirely of solid ore; yet it only formed a comparatively small part of the stone raised, the weight of which exceeded 1¼ ton. The mines are situated at Combmartin, near Ilfracombe, Devon, and are at present attracting considerable attention.

CALSTOCK CONSOLS.—Those interested in this mine will be pleased to learn that the Danescombe lode looks much better than ever it did for proving a paying lode. In a short time it is expected that the other lodes which are being worked upon will prove that the shareholders have done wisely in not parting with shares.

DEVON COPPER (Okehampton).—This mine has been specially inspected this week by Capt. Pope, of Wheal Basset. In his report, which is very favourable, he points out the favourable situation, in highly mineralised strata, and "quite on the junction of killas and granite, about which good deposits of ore are generally found." He alludes to the operations in progress, and the favourable construction of the great lode, and says the lode appears to improve in sinking, and produces "a very fine gossan, soft spar, peach, and good stones of copper ore." He also points out the great extent of the sett, and the immense advantages accruing by the command of a fine water-power, which precludes the necessity for the usual costly erection and maintenance of steam-power. Coming from such an authority this seems most cheering to the shareholders. It is expected that the mine will be also inspected this week by Capt. Charles Thomas, of Dolcoath, and both reports will shortly be published in the Journal.

POLHIGEY MOOR.—It is reported that an improvement has taken place here. The mine is well managed, the head of the committee being Peter Clymo, whose name is a sufficient guarantee that the affair is a sound one, and likely to pay well. The tin in the mine is said to be of a very rich description.

SLATE QUARRYING IN WALES.—A property comprising about 170 acres, situate about six miles from Port Madoc, and held on a lease for 42 years, at a low royalty, is about to be vigorously worked by a Shrewsbury company—the PENNANT SLATE COMPANY—with a capital of 20,000*l.*, in shares of 5*l.* each. The quarry has been very favourably reported upon by Mr. John Francis, the manager of Col. Pennant's quarries. The vein, which is nearly 150 yards in thickness, extends through the property for the length of about half-a-mile, and there is little top or waste rock to remove. It is considered that the quality of the slate is not to be surpassed by any in North Wales, and the colour—a greyish blue—commands a ready sale in the market at the highest price. From the prospectus, which will be found in another column of this day's Journal, it will be seen that the vendor's shares will not be entitled to dividend until the other shares have received 10 per cent. dividend; and it is observed that, looking at the quality of the slates produced, and the unusual facilities which exist for working the quarries, there can be no doubt that a dividend equal to that paid by the best quarries in Wales will in a short time be secured.

THE SLATE TRADE IN IRELAND.—We have received an interesting report upon the Victoria Slate Quarries, Clashnasmut, Carrick-on-Suir, by Mr. G. V. Du Noyer. The immediate slate-yielding area occurs on the northern and eastern slopes of the Carrickadoon-hill, 5 or 6 miles north of Carrick-on-Suir, and covers 1176 acres. The slates are faintly ribbed, but on repeated trials he never found that they had a tendency to fracture on those lines of ribbing. Attached to the quarries is ample room for spoil bank, and as Mr. Despard is the owner in fee of the ground, every facility could be granted for extension as occasion requires. The position of the Victoria Slate Quarries is about the very best with which he is acquainted, the quality of the slate is second to none in Ireland, and the quantity is inexhaustible. The sum proposed to be raised is 25,000*l.*, in shares of 1*l.* each. The quarry land and slate quarries are offered as fee simple property, and the owner, Mr. Despard, will allow it to be worked without a royalty, he being content with a sum in hand and shares in a company.

THE ST. CUTHBERT LEAD SMELTING COMPANY.—The produce of lead from these works for the four months ending April 30 has realised in London the sum of 1339*l.* 7s. 3d., and the expenses of production, transit, and commission on sale during the same period have been 941*l.* 5s. 10d., leaving a profit of 398*l.* 1s. 5d. From this sum the London expenses and 1-18th royalty have to be deducted. The above is a very satisfactory result, being the produce of only one furnace, and could only have been obtained by the new process now carried on. The new works are to be finished by August next, when the produce is expected to be five times greater than at present. The total capital of the company being only 50,000*l.*, it would appear from the above figures that very large profits may be fully anticipated.

RAILWAYS AND TELEGRAPHS.—At the University College *soiree*, on Wednesday evening, Messrs. Silver exhibited a series of samples of material for railway and telegraphic uses, one of the most ingenious models being that of the apparatus contrived by Professor Wheatstone, for giving notice of disarrangement of distance signals. The Professor, as might be supposed, resorts to electricity, and employs a metallic spring, which is so fixed that it shall be in the flame of the signal-lamp. The lighting or extinguishing of the lamp will, in four seconds, vary the temperature of the spring sufficiently to break or complete the circuit, and the change is at once communicated to the station, danger being announced by the ringing of a bell or other suitable means. The new gum, *balata*, was also exhibited, and the *soiree* altogether passed off very satisfactorily.

PETROLEUM RAILWAY SIGNALS.—Mr. J. T. Hall, the gas engineer to the London and North-Western Railway Company, has been directing his attention to the burning of mineral oils for signal purposes, and the lighting of railway stations; and, after a series of experiments, has succeeded in constructing a signal lamp and lantern in which petroleum may be used with perfect safety, and a brilliant and uniform light be obtained. The light is not affected by gusts of wind. It is already in successful operation at several of the stations on the London and North-Western Railway. In addition to its employment for railway signals, it may also be used for lighting coal and other mines, lighthouses, and similar places. It is said that whilst the new petroleum lamp gives a large excess of illuminating power, the actual cost, as compared with other oils, is less by upwards of 50 per cent.

MINE ACCIDENT.—At North Roskear, Benjamin Martin, 20, and Jos. Tonkin, 45, were killed through the accidental slipping of the stage used by them for putting in the skip-road.

A return just made up shows that the number of joint-stock companies registered since Jan. 1, 1863, has been 1176. More than a third of the whole were registered in the 20 weeks from Jan. 1 to May 18, giving a total of 21 per week.

We regret to learn that Mr. John Atkinson, F.G.S., of Thelwall, Warrington, the much respected secretary of the Manchester Geological Society, died on May 29, after a brief illness.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Meetings of Public Companies: East Wheal Lovell, Great East Lovell, West Par Consols, South Darren, Labuan Coal, Great Barrier Land, Harbour, and Mining, West Canada, East Rosewarne, St. Just Consols, and Copiapo Extension Railway; Foreign Mining Reports; Prices of Materials; Gold from Australian Colonies and New Zealand, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 3, 1864.

COPPER.	£	s.	d.
Best selected....p. ton	101	0	0— —
Tough cake..... „	98	0	0— —
Tile ..... „	98	0	0— —
Burra Burra .... „	100	0	0— —
Copper wire .....p. lb.	0	1	0½— —
ditto tubes ..... „	0	1	1 — —
Sheathing & bolts p. ton	105	0	0— —
Bottoms ..... „	110	0	0— —
Old (Exchange)..... „	91	0	0— —

IRON.	Per Ton.
Bars Welsh, in London..	8 2 6— 8 5 0
Ditto, to arrive	8 5 0— —
Nail rods	9 10 0— —
„ Stafford. in London	10 0 0—10 10 0
Bars ditto	9 15 0—11 0 0
Hoops ditto	10 15 0—11 10 0
Sheets, single	11 15 0—12 10 0
Pig No. 1, in Wales....	4 10 0— —
Refined metal, ditto....	4 0 0— 5 0 0
Bars, common, ditto....	7 7 6— 7 10 0
Do., merch., Tyne or Tees	8 10 0 9 0 0
Ditto, railway, in Wales	7 10 0— —
Ditto, Swed. in London.	12 5 0— —
To arrive	12 5 0— —
Pig, No. 1, in Clyde....	2 19 0— 3 2 3
Ditto, f.o.b. Tyne or Tees	2 16 0— 2 18 0
Ditto, forge, f.o.b. ditto..	2 15 0— —
Railway chairs.....	5 10 0— 5 15 0
„ spikes.....	11 0 0—12 0 0

LEAD.			
English Pig, ordny. soft	21	12	6—22 0 0
Ditto (WB)	22	17	6—23 0 0
Ditto sheet	22	5	0—22 10 0
Ditto red lead	22	0	0— —
Ditto white	26	0	0—27 0 0
Ditto patent shot.....	24	0	0— —
Spanish	21	0	0—21 5 0

BRASS.	Per. lb.
Sheets	9¾d.—10¼d.
Wire	8¾d.— 9¼d.
Tubes	9¼d.— 9¾d.

FOREIGN STEEL.	Per Ton.
Swedish, in kegs (rolled)	15 10 0— —
„ (hammered).	16 0 0—18 0 0
Ditto in faggots.....	17 0 0—18 0 0
English, Spring	18 0 0—23 0 0
Bessemer's, Engineers Teel	44 0 0— —
„ Spindle	30 0 0— —
QUICKSILVER	7 0 0 p. bottle

SPELTER.	Per Ton.
Foreign	23 10 0— —
To arrive	23 15 0—24 0 0

ZINC.	
In sheets	26 10 0—27 0 0

TIN.	
English, blocks 108	0 0— —
Ditto, Bars (in barrels)..109	0 0— —
Ditto, Refined 113	0 0— —
Banca 112	0 0— —
Straits 106	0 0— —

TIN-PLATES.*	
IC Charcoal, 1st qua. p. box.	1 9 0— 1 11 0
IX Ditto 1st quality „	1 15 0— 1 17 0
IC Ditto 2d quality „	1 7 0— 1 8 6
IX Ditto 2d quality „	1 13 0— 1 14 6
IC Coke ..... „	1 4 0— 1 5 0
IX Ditto..... „	1 10 0— 1 11 0
Canada plates ....p. ton	14 0 0— —

In London; 20s. less at the works.

Yellow Metal Sheathing .p. lb.	9d.— —
Sheets .....p. lb.	9d.— —
Indian Charcoal Pigs in London	7 0 0— 7 10 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The Metal Trade has not presented any very striking feature of interest during the past week, though the market still continues dull, yet there are some slight appearances of improvement, and we are not without hope that we shall, ere long, see a more flourishing state of business. Buyers seem rather more disposed to give out orders; and as the Money Market continues easier, with a prospect of even lower rates soon, speculators may be expected to come into the market again; and this would give a decided impetus to the trade in certain metals; and though, of course, it would be more desirable to find that the consumption was increasing, as when this is the case, the improvement is more likely to be permanent; yet, in the present state of the metal market, any circumstances which would give vigour to the trade would be hailed with satisfaction. We certainly entertain the hope that, as a more favourable turn in the market appears to be taking place, this improvement will go on until the metal trade is restored to the same state of activity and prosperity which marked it during the closing months of the past year, and that we shall still have to record as pleasing a state of things during the remaining months of the present year.

COPPER still remains in the same position as at our last report; the demand has not yet much improved, and transactions still occur under manufacturers' prices.

IRON.—In Staffordshire a slight improvement has taken place during the week, and rather more orders have been given out by merchants; for India, also, the demand has improved, especially for railway purposes, for which a large quantity of iron is still required. In Welsh the quotations for iron are not quite so firm, and the market is rather more in favour of buyers; there are, however, a good number of vessels loading in the docks and at various wharves with iron, much of which is for America, which, it is hoped, will arrive before the new tariff comes into operation. Swedish iron has not materially altered during the week. The Scotch pig-iron market has been rather dull during the week, and the fluctuations by no means considerable. At the commencement of the week business was done at 59s. 9d. cash, and 61s. 1½d. three months, but buyers withdrawing, the market fell to 59s. 6d. cash; on the following day the price fell to 59s. 3d. cash, 59s. 9d. one month, and 60s. 9d. three months; a trifling improvement afterwards occurred, and the market became rather more steady, and transactions took place at 59s. 4½d. cash, and 60s. 7½d. three months; this, however, did not continue, and the last advices from Glasgow state the market to be inanimate, business being done in warrants at 59s. 3d. cash, and 60s. 6d. three months, and the market closed rather sellers.

LEAD.—The market remains quiet, and prices are without any alteration from our last report.

TIN.—The market for English is quiet, and business can still be done at 2*l.* under the fixed rates. For Straits it is rather firmer, and transactions have occurred at 109*l.*, full prompt. The Trading Company have announced that their annual sale of Banca in Holland will take place on June 29, and will consist of 138,100 slabs, with 20,000 slabs more, should they arrive in time. No sale will take place again before March, 1865.

SPELTER continues still to advance in price, and considerable sales have taken place on the spot at 23*l.* 5s. to 23*l.* 10s., for July delivery at 23*l.* 15s., and for August delivery at the same price, on which terms there remain buyers. The stock in London on the 1st inst. was 12,448 tons, being an increase of 793 tons during the month.

STEEL.—No alteration or improvement has occurred.

TIN-PLATES remain dull, and heavy transactions are not very frequent.

QUICKSILVER.—No alteration in fixed prices has taken place, but second-hand parcels are still selling at 8*l.* 15s. per bottle.

THE TIN TRADE.—From Rotterdam, under date June 2, Mr. L. T. Van Houten writes that the Dutch Trading Company have fixed the sale of Banca tin for June 29. The sale will comprise 138,100 slabs, with 20,000 slabs more if arriving in time. The usual conditions will be observed, and the company guarantee they will hold no further sale before March 1, 1865.

MIDDLESBRO'-ON-TEES, MAY 31.—The Cleveland Iron Trade is still unfavourably influenced by the struggle going on in America, and the uncertainty felt with respect to the issue of the Dano-German controversy. This, combined with the high rate of discount, has caused a further decline in the price of Cleveland pigs. Makers, with few exceptions, adhere to list prices; but there are a few parcels of iron, bought a few months ago on speculation, now in the market, at prices 5 per cent. under list quotations; but, as these are comparatively insignificant in quantity, a week or two may see them in the hands of the consumer. A sale by one firm of 24,000 tons pigs has been, we understand, recently concluded at good prices. Two or three transactions of the same magnitude would, in a measure, counteract the evils now operating prejudicially on the trade. The quality of the Cleveland iron is likely to be greatly improved by the admixture of titanium and manganese ores with the ironstone of the district. The Titanium Ore Company, having their head-quarters at Birmingham, are prepared to deliver ilmenite, containing 27 per cent. of titanium and 40 per cent. of iron, ex ship, at the ports on the north-east coast, at 22s. 6d. per ton. It is computed that 2½ per cent. of this ore, when only partially reduced, is sufficient to increase the tensile condition of iron fully 10 per cent., and at a cost of about 6d. extra per ton of pig-iron. Ilmenite has also been found to be invaluable as a fettling substance for puddling furnaces, its refractoriness being unequalled, and the quality of the puddled bar greatly improved by its use. Manufactured iron is in steady demand, at slightly reduced prices. The various new mills and blast-furnaces are progressing rapidly, and additional blast-furnaces are contemplated. The iron shipbuilding trade, which now constitutes a very important branch of the trade of this district, is very active, the various yards being in full work. A good augury for the future is to be found in the fact that on the Tees alone there are building, or about to be built, six 3000-ton steamers, the aggregate quantity of iron required to build the same being about 9000 tons; and about 20 smaller ones.—ROBERT STEPHENSON AND CO.

COAL MARKET.—On Monday, the arrivals fresh up for this day's market were 54 ships. First-class house coal was in moderate demand, at fully last day's prices; second and third-class advanced 3d. to 6d. per ton; Hartley's and manufacturers' are without alteration; best house coal, 16s. to 16s. 6d.; seconds, 14s. 6d. to 15s. 6d.; Hartley's, 14s. to 15s. 6d.; manufacturers', 13s. to 15s. per ton.—On Wednesday, only 23 ships arriving, the demand was brisk for household coal, at 6d. per ton advance in prices. Hartley's and manufacturers' coals steady, at last day's quotations; best house coal, 16s. 6d. to 17s.; seconds, 15s. to 15s. 9d.; Hartley's, 14s. to 15s. 6d.; manufacturers', 13s. to 15s. per ton.—On Friday there were 17 arrivals. The market was fully equal to Wednesday for first-class house coal, with a trifling advance upon seconds. Hartley's and manufacturers' are without alteration. Hetton Wallsend, 17s.; South Hetton Wallsend, 17s.; Stewart's Wallsend, 16s. 6d.; Braddyll's Wallsend, 16s.; Eden Main, 15s. 9d.; Hasting's Hartley, 15s. 6d.; Bute's Tanfield, 14s.: 5 cargoes unsold; 50 ships at sea.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in May was 52,382 tons, and in the corresponding month of last year 31,134 tons, showing an increase last month of 21,248 tons. The exports coastwise during May were 13,056 tons; same month last year, 6686 tons—increase last month, 6370 tons. Total exports coastwise from Jan. to May, 54,285 tons; same period last year, 32,808 tons—increase this year, 21,477 tons.

CONTRACTS FOR COAL.—The Royal Spanish Naval Commission require tenders for a two years' supply of Coal for the Navy.——The Nottingham Gas Light and Coke Company advertise for the supply of 40,000 tons of Soft Coal and Soft Cobbles or Nuts, for the period terminating May 31;—and the Derby Gas Light and Coke Company require tenders for 14,000 tons of Soft Coal and Soft Cobbles and Nuts, during the year to June 30, 1865.

In two or three mines this week the business in the SHARE MARKET has been very heavy and fluctuating, but in mines generally it has been rather slack. Those most in demand have been East Grenville, Grenville, Wheal Crebor, Sithney Carnmeal, Wheal Chiverton, East Lovell, East Carn Brea, Gonamena, Great Laxey, Stray Park, Wheal Seton, Great Busy, Hallenbeagle, West Frances, Clifford Amalgamated, &c. East Grenville shares have been very largely dealt in: on Monday they were 4¾ to 4⅞; Tuesday advanced to 4⅞; Wednesday to 5, 5⅛; Thursday opened 5 to 5⅛, and reached 5⅛ to 5¼; on Friday they opened flat at 5¼ to 5⅛, sellers. The report showed no falling off whatever in the mine, and the cause of the decline in price was said to be that there were large orders in the market, chiefly from Cornwall, to sell. In the afternoon the price rallied again, and left off (four o'clock) 5⅜ to 5⅝. The lode in the shaft below the 65 is from 15 to 18 in. wide, with good stones of ore; the 65 east is worth 1 ton per fm.; the 65 west, 7 tons per fm.; the 55 west 3 tons of ore. Wheal Grenville shares have been largely dealt in, and leave off 8⅛ to 8¼; the lode in the 120 has been cut into 2 feet, and is precisely of the same character as in the upper levels, and producing a little tin, but not to value at present. In the 110, the agent thinks the main part of the lode is still to the north of this, which is an important point both for the 110 and the 120, will be proved in a few days. What leads the agent to think that the best part of the lode is still north, is the fact that in the winze sinking below the 100 the lode, worth altogether 40*l.* to 50*l.* per fathom, is divided by a horse of granite; and there is at least 7 feet to drive north in the 110 to get under the proper underlie of this lode. East Carn Brea shares have been in fair demand, and advanced to 8⅛, 9; a lode has been cut in the 26 worth 6 tons per fm. east, and 4 tons per fm. west. The stope in back of the 60, on No. 3 lode, is producing 7 tons of ore per fm.; the 30, east of the western shaft, is worth 3 tons; the 30 west, 2 tons per fm.; other parts of the mine looking well. Wheal Crebor shares have been in good demand, and leave off 46s. 6d. to 48s. 6d.; the mine is looking better than at any former period. In a winze sinking below the 84, and in advance of the 96 end east, the lode is yielding 6 tons of copper ore per fm., and the 96 end coming into ore, now worth 1 ton per fm.; the 84 east, 2 tons; the stope in back of the 72 east also 2 tons per fm. Wheal Hope, 4 to 4⅛; the lode in the shaft is improving, now 2 feet wide, yielding good work for lead; the 75 west also yields good stones of lead; the 65 west is worth 12*l.* to 15*l.* per fathom. North Shepherds, 4¼ to 4⅜; the lode in the adit end east has greatly improved, and fine samples of lead broken from it; and as the best part of the lode is going down in the bottom of the level, it augurs well for the 15 cross-cut; though some disappointment is felt at the delay in cutting the lode. Carn Camborne again flat, at 20s. to 25s. Cargoll, 29 to 30; at the meeting a dividend of 10s. per share (458*l.*) was declared, leaving the sum of 893*l.* 18s. 7d. in hand. The profit on the three months' working was 482*l.* 11s. 5d., and the mine not looking so well, though there are one or two favourable points in it. Clifford Amalgamated, 33¼ to 34¼; East Caradon, 28 to 29.

North Devon Silver, 20s. to 21s.; this mine, near Combmartin, upon which a large expenditure has been made, is reported as looking well, and likely to work at a profit in future. In a few days 30 tons of lead will be sold, and the lode improving in depth. East Russell, 3⅞ to 4¼; Gonamena, 3¾ to 4. Great Laxey shares have not been so firm this week, but leave off 13 to 14. Pendeen, 4¼ to 4⅜; Providence Mines, 38 to 40; Sithney Carnmeal, 7¼ to 7¾. South Caradon Wheal Hooper, 5s. to 7s. 6d.; in the 54 cross-cut south a lode has been cut 18 in. wide, producing good stones of copper ore. South Frances, 40 to 45; Stray Park, 29¼ to 30¼; West Chiverton, 70 to 75; West Seton, 180 to 190; Wheal Basset, 90 to 95; Wheal Chiverton, 11 to 12; Wheal Ludcott, 40s. to 45s. South Grenville, 10s. to 12s. 6d.; the lode in the adit level west is 18 in. wide, and a kindly lode. In the cross-cut south a lode is expected to be met with every day. Great Vor, 33¼ to 34¼; Great Wheal Fortune, 14 to 15; Hingston Down, 3¼ to 3½; Lady Bertha, 7s. 6d. to 10s.; Marke Valley, 4¼ to 4½; Nangiles, 30 to 32; New Rosewarne, 11 to 11½; North Robert, 6s. to 8s. Hallenbeagle shares have advanced to 4¼, 4½.

Wheal Mary Ann, 15 to 16; Wheal Seton, 222½ to 227½; Wheal Trelawny, 20 to 21; Wheal Unity, 6s. to 8s., and in request; South Carn Brea, 10s. to 15s. Great North Downs, 5⅜ to 6; the main, or boundary shaft, continues to improve, lode worth 30*l.* per fathom. The lode in Rule's shaft is worth 12*l.* to 15*l.* per fathom. Great Busy, 3⅞ to 4; the lode in the engine-shaft is worth 20*l.* per fathom, and looking well for improvement. The winze below the 130 is worth 50*l.* per fathom. East Rosewarne, 3 to 3¼; at the meeting the accounts showed a credit balance of 882*l.* 2s. 8d. Hallett's shaft has been sunk 2 fms. 3 ft. below the 75, the first 9 ft. in a good branch of ore, worth 10*l.* per fathom; in the last 6 feet the lode is small and poor. The 75, east of Hallett's, has been driven 5 fathoms, now worth 12*l.* per fathom. The 75 west is worth 14*l.* per fathom. At King's shaft, down 4 fathoms below the 55, the lode is worth 30*l.* per fathom. East Lovell shares have been 20 to 21, but leave off 19 to 20. North Downs shares have advanced to 2, 2⅛, but we have no official notice of any improvement, though there must be one to cause the rise.

On the Stock Exchange business in Mining Shares has been quiet during the week, with few transactions, and scarcely any variation in prices. The following quotations are officially recorded in British Mining Shares:—East Basset, 66; East Carn Brea, 7⅛, 8⅛, 8⅛, 8⅜; Grenville, 8⅛; Tincroft, 18; Chiverton, 11⅛, 11⅛; Devon Great Consols, 560, 557, 560; East Wheal Russell, 3⅜, 3⅝; Great Wheal Vor, 33¾, 33¾, 34; Wheal Ludcott, 2; Stray Park, 30; Wheal Seton, 222½; Wheal Mary Ann, 14¾. In Colonial and Foreign Mining Shares the prices were:—Cape, 12½; Yudanamutana, 3, 2¾, 3; St. John del Rey, 46¾, 47, 46¾, 47, 47¾; United Mexican, 6½; Cobre, 35, 34¾; East del Rey, 1, 1.

The Great North Vor Tin and Copper Mining Company, with a capital of 25,000*l.*, in shares of 5*l.* each, has been formed for re-working the Leeds Town Consols and Polglase, together with several contiguous lodes. It is mentioned that Great North Vor is immediately surrounded by many celebrated mines, which have given immense profits. The tin and copper lodes contained in this sett are of the same highly mineralised nature as the contiguous lodes, which have been so profitable, and they are all embedded in the congenial killas which forms the basin contained between the Crowan and Godolphin granite ranges. In the opinion of practical miners the celebrated Wheal Vor flookan bisects this sett, heaving the lodes similarly to the Great Wheal Vor lodes, which are, in fact, parallel. This flookan has had a material effect in the other mines through which it passes. The purchase money for the lease is fixed at 5500*l.*, of which 3000*l.* is to be in paid-up shares. The lease is for 21 years, at 1-18th dues. The prospectus will be found in another column.

The Anglo-Saxon United Tin Mining and Smelting Company, with capital of 150,000*l.*, in shares of 2*l.* each, is in course of formation for working the Ehrenfriedersdorf Sauberg and Freiwald Mines, situated near Chemnitz, in the highlands of Saxony, and producing tin and arsenic. The prospectus states that the mines, the ultimate value of which cannot even be guessed at, cover an area of about 1104 square acres, and are to be acquired for 43,500*l.*, one-third of which will be taken in paid-up shares of the company. The royalty is redeemed to 1870, after which the payment to the Government is fixed at 2½ per cent. (equal to 1-40th dues) on the returns of the mines. The former proprietors lodged in the hands of the

Saxon Government a deposit of 1500*l.*, on which the company will receive 4 per cent. from the time they commence working. The mines are in close proximity to the Annaberg and Chemnitz Railway, and there is water available equal to 100 horse-power. It is mentioned that the property has been carefully and scientifically surveyed, and that the Government mining officers of Saxony have certified to the quantity of tin and arsenic sold, in addition to which Capt. John Vercoe and Son have inspected the property, and made a detailed report, accompanied by an elaborate estimate of receipts and expenditure for the first three years, and it is stated that, "in order to test his firm conviction that the results will be realised, he has agreed to give up his connections in England, and go with his two sons (both miners) to Saxony, and work the property for a nominal salary, with a small percentage on the nett profits of the ore." Many tons of tin are stated to be now lying on the surface, which will be considerably augmented by the time the stamps are erected.

The New Del Rey Gold Mining Company is the title of an undertaking which has for its object the purchase of the well-known Taquichil Mine, situated about four miles from the celebrated St. John del Rey. This property when last worked continued to yield gold in considerable quantities, until the available machinery proved altogether inadequate to keep the water—indeed, it is affirmed by Captain Pengilly (who was thirteen years agent at the St. John del Rey) that large quantities of gold will be found at the bottom of the mine. Its gold-bearing lodes have been proved to be similar to those in the rich neighbouring mines of Gongo Soco, and Capt. W. Williams (late manager of the Brazilian Gold Mining Association) estimates that 10,000*l.* will be ample to place the mine in good working order, and make large returns. Mr. Joel Hitchens (late commissioner of the Imperial Brazilian Gold Mining Company), who inspected the property in 1836, in a favourable report asserts that the Taquichil is known to possess two rich lodes, running parallel and within 6 ft. of each other—on one, the old lode, a shaft has been sunk on a shoot of gold, and it is notorious that it has produced considerable riches. He further states that no means have been taken to explore the ground east and west of this shaft, although it is very improbable that this shoot of gold is the only one in the lode, and expresses a confident opinion that by extending on the course of it other and important discoveries will be made. It is mentioned that the Taquichil estate is about six miles in length, and that the auriferous formations run longitudinally through it, and that timber in the immediate vicinity of the mine is very plentiful. Capt. Martin, late manager of the Montes Aureos (Brazilian) Gold Mine, and present manager of the Cambrian Gold Mines, North Wales, has also favourably reported upon it.

The progress during the past week of other undertakings recently introduced, the publication of whose prospectuses has been already announced, and of companies requiring an increase of capital, is thus reported:—The Rossa Grande Gold Mining Company will be prepared to deliver the share certificates, in exchange for the banker's receipts, on June 15. The Labuan Coal Company propose to raise an additional 50,000*l.* by the issue of new shares of 10*l.* each, *pro rata*, to the shareholders on the register on June 7; if not taken within 15 days they will be offered to the public. The new shares, to the extent paid on each share, participate in dividends from July 1. The directors do not anticipate the necessity of having to call up the entire amount of each share for some time to come, and will find 2*l.* 10s. per share (equal to 12,500*l.*) ample to meet all claims upon capital for the present year, but they thought it better to have authority given them to raise a sufficient sum to complete the sinking of the "B" pit, and all other works, including a railway to Port Victoria. The necessary special resolution was passed at the meeting on Tuesday, and a meeting for confirming it is fixed for June 15. The Scottish and Universal Finance Bank sent out their letters of allotment and of regret on Wednesday evening; it is understood that the applications considerably exceeded the number of shares to allot. The latest quotation was ½ to 1½ prem. Millwall Ironworks, ⅜ to ½ prem.; Reading Ironworks, ½ to 1 prem.

At Camborne Ticketing, on Thursday, 3122 tons of ore were sold, realising 16,389*l.* 15s. 6d. The particulars of the sale were:—Average standard, 121*l.* 2s.; average produce, 6⅘; average price per ton, 5*l.* 5s. 0d.; quantity of fine copper, 206 tons 5 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
May 12	2580	£122 11 0	6⅘	£5 1 0	£79 7 0
„ 19	5237	128 12 0	5⅝	4 9 6	79 11 0
„ 26	3912	121 9 0	6⅘	5 6 6	79 19 0
June 2	3122	121 2 0	6⅘	5 5 0	79 19 6

Compared with last week's sale, the decline has been in the standard 7s., and in the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month the standard is about stationary.

At the Swansea Ticketing, on May 24, 1997 tons of copper ore were sold, realising 18,251*l.* 2s. The particulars of the sale were—Average standard, 103*l.* 10s.; average produce, 11; average price per ton, 9*l.* 3s.; quantity of fine copper, 219 tons 13½ cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore cop.
May 3	2156	£ 98 19 6	15 13–16	£13 8 6	£ 84 18 0
„ 24	1997	103 10 0	11	9 3 0	83 2 0

Compared with the last sale, the decline has been in the standard about 1*l.* 10s., and in the price per ton of ore about 3s. 4d. Compared with the corresponding sale of last month, the decline has been in the standard 3*l.*, and in the price per ton of ore about 6s. 6d. Of the ore sold on Tuesday, 1745 tons were British ores, which gave an average produce of 8½, and sold at an average standard of 107*l.* 19s. 6d.=77*l.* 2s. 6d. per ton of ore; the remaining 252 tons were foreign ores, which gave an average produce of 27, and sold at an average standard of 93*l.* 10s. 6d.=23*l.* 1s. per ton of ore. On June 14 there will be offered for sale 2433 tons, from Cobre, Berehaven, Knockmahon, Connorree, Moonta, Western Australia, Cwmbrane, Dyfngwm, Tigrony, Gourock, Cape, and elsewhere.

The following dividends have been declared during May:—

Mines.	Per share.	Amount.
Minera	£10 0 0	£18,000 0 0
Devon Great Consols	12 0 0	12,288 0 0
South Caradon	6 0 0	3,720 0 0
West Basset	0 5 0	1,500 0 0
Providence	1 0 0	1,120 0 0
Frank Mills	0 4 0	1,000 0 0
East Wheal Lovell	0 10 0	953 0 0
Wheal Trelawny	0 12 6	650 0 0
Botallack	3 0 0	600 0 0
St. Ives Consols	0 10 0	470 0 0
Cargoll	0 10 0	458 0 0
Wheal Owles	5 0 0	400 0 0
West Damsel	1 0 0	256 0 0
Wheal Jane (Kea)	0 10 0	256 0 0
United Mexican	0 5 0	10,793 10 0
Total		£52,464 10 0

At South Caradon Mine meeting, on Tuesday, the accounts for January and February showed a credit balance of 5671*l.* 9s. 4d. A dividend of 3072*l.* (6*l.* per share) was declared, and 2599*l.* 9s. 4d. carried over. The profit on the working was 2864*l.* 16s. 8d. Capt. P. Clymo reported that—"The mine is still in a very prosperous state; and although by making the usual dividend we shall decrease the balance about 200*l.*, we shall increase it more at the next meeting than the decrease to-day."

At the Carn Brea Mines meeting, on Thursday, the directors declared their 113th dividend, of 2*l.* per share—making 280*l.* 10s. already paid on each 15*l.* share.

At the Providence Mines meeting, on May 25, the accounts showed a credit balance of 1403*l.* 9s. 3d. A dividend of 1*l.* per share was declared. The profit on the quarter's working was 704*l.* 8s. 4d., with 10 tons of tin added to stock. Captains Hollow, Rogers, and Dunstan, in their report, say—"We are progressing with the erection of our new stamps-axle, and shall have it working in two months. The mine is looking much as usual, and our setting on Friday last was for the usual quantity of tin. We have reduced our quotations per fathom, in accordance with the fall in price of tin."

At the East Wheal Lovell meeting, on May 26 (Mr. H. Rogers in the chair), the accounts for the four months showed a profit of 1072*l.* A dividend of 10s. per share was declared, and a balance of 351*l.* was carried forward to the credit of the next account. The agent's report, and the details of the meeting, will be found in another column.

At the West Par Consols Mine meeting, on Wednesday (Mr. Jardine in the chair), the accounts showed a balance of liabilities over assets of 157*l.* A call of 1s. 6d. per share was made. Details in another column.

At Wheal Trerew meeting, on May 30, the accounts showed a credit balance of 116*l.* 2s. 10d. A call of 10s. per share was made. The majority of the shares being held in London, it was resolved that the offices of Mr. W. G. Powning, 192, Gresham House, be the offices of the company, and that he be appointed secretary, at 3*l.* 3s. per month; that the mine be henceforth known as "Trerew Wheal Rose;" and that Capt. Middleton's salary be, again, 6*l.* 6s. per month.

At the Nun's Cross Tin Mine meeting, held at the Manor Inn, Walkhampton, on May 28, the accounts showed a cash balance of 20*l.* 4s. 9d. A call of 15s. per share was made. Capt. Thomas Foot reported that "since the last meeting the adit level had been driven 11 fathoms. The end is now driving across the old workings, and in 6 fms. more the centre of them will be reached. In this drivage, judging from appearances in the old underground workings, we expect to cut No. 1 north lode. We shall then have to drive a further distance of 12 fms. 3 ft. to reach the south side of the old workings, in which all the lodes and branches will be intersected. There will be about 10 fms. to drive on the course of the lode to reach the point of junction with the counter lode. The surface workings at this point are 25 fms. wide, and we hope from their extent, we may find the lodes productive when intersected."

At North Jane Mining Company meeting, on May 24 (Mr. T. Bell in the chair), the accounts for the three months, ending March, showed a debit balance of 1041*l.* 2s. 8d. A call of 10s. per share was made. Thanks were voted to Mr. Masser, for information given with respect to the mine; to Captain James Evans, and to the purser. Capt. James Rowe's appointment was confirmed, and it was resolved that he obtain a suitable water-wheel, if he consider the present wheel unsuitable.

At New Hendra Mine meeting, on May 23, the accounts for the five months, ending March, showed a debit balance of 87*l.* 10s. 6d. A call of 7s. 6d. per share was made. Capts. King and Harris reported upon the various points of operation.

At Craddock Moor Mine meeting, on May 26, the accounts for Jan. and Feb. showed a credit balance of 1089*l.* 14s. 11d. The loss on the two months' working was only 35*l.* 3s. 11d. Capts. H. and J. Taylor and H. Phillips reported that they purpose to sell about 280 tons of copper ore for the next two months.

At Cargoll Mine meeting, on May 26, the accounts for the three months, ending March, showed a credit balance of 893*l.* 18s. 7d. Capts. Gross and Tyzzer reported favourably upon the points of operation; the first parcel for the credit of next account would realise about 1050*l.*

At Wheal Harriett meeting, on May 25 (Mr. J. E. Mathew in the chair), the accounts for the four months, ending March, showed a credit balance of 839*l.* 4s. 6d. Capt. S. Williams reported that he still hopes, by driving the 130 cross-cut north, 115 cross-cut north, 115 west on north part of main lode, 115 west on new north lode, 24 cross-cut north and south of Alexander's lode, adit end east on Alexander's lode, and the adit end east on north lode, to meet with more copper and tin than the present prospects represent.

At Wheal Margaret meeting, on May 25, the accounts showed a loss on the quarter's working of 752*l.* 8s. 4d., and a debit balance of 1065*l.* 12s. 10d. Captains Treweeke, Williams, and Youren, in their report, say—"Some years since we were obliged to desist, for want of ventilation, from working on the Foul lode, about midway between the Mushell and North Russoe shafts, in a large and productive run of ore ground, and in order to get at it more conveniently than formerly, we are opening a shaft east of Mushell for that purpose, which will be soon completed; the levels most fitting to commence with, we think, will be the adit and the 20."

At the South Darren Mine meeting, on Monday (Mr. Chatfield in the chair), the accounts showed a debit balance of 31*l.* Details in another column.

At the West Sharp Tor meeting, on Wednesday (Mr. P. Cotton in the chair), the accounts for the three months ending April showed a credit balance of 185*l.* 16s. 7d. There were merchants' bills unpaid amounting to 269*l.* 1s., against which there were arrears of call amounting to 96*l.* A call of 3*l.* per share was made. Capt. Wm. Richards reported that as soon as the western boundary lest from the proposed stream works is finished, and the weather changes, they will commence the streaming, and there is every probability now of it turning out well. The machinery continues to work well. The cost will be about the same as for some time past.

At the Havan Silver-Lead Mines Company first general meeting, on Monday (Mr. M. C. Seton in the chair), the notice convening the meeting having been read, the directors' report and accounts were received and adopted. The directors announced the sale and shipment of 50 tons 6 cwts. of ore, at 14*l.* 8s. 6d. per ton. Capt. Matthew Francis says "the mine is opening altogether in a satisfactory way, and in my opinion will gradually become a rich mine." It was resolved that every director who did not hold 100 shares should cease to be a director. Major-General Shortrede resigned his directorship on May 2. Mr. Edmund Edwards having resigned his seat at the board, Capt. S. S. Windham was elected in his place; and Sir William Smith, Bart., was elected a director. Mr. William Ward was re-elected auditor, and his remuneration fixed at three guineas. The meeting concluded with a vote of thanks to the Chairman.

At Yarner Mine meeting, on Tuesday (Mr. John Ware in the chair), the accounts for the three months ending March showed a debit balance of 438*l.* 17s. 7d. The arrears of calls amounted to 517*l.* 6s. A call of 2s. 6d. per share was made. Captain R. Barkell reported that the quantity of ore broken towards the next sampling is from 80 to 90 tons, nearly 70 of which is dressed, and they expect to sample 120 tons of ore at the usual time.

At Trevenen and Tremenheere meeting, on Tuesday (Mr. John Ware in the chair), the accounts for the three months ending March showed a debit balance of 1519*l.* 5s. 4d. The arrears of calls were 431*l.* 17s. A call of 4s. per share was made. Capts. Medlen, Tippett, and George reported that they expect to be enabled to pay the full cost in the next three months, with a prospect of doing better in future.

At North Jane Mine meeting, held in Leeds, on May 24, the accounts for the three months ending March showed a debit balance of 1041*l.* 2s. 8d. A call of 10s. per share was made. The appointment of Captain James Rowe, of Camborne, as manager was confirmed. Capts. Rowe and Tamblyn reported on the various points of operations, and urged a vigorous prosecution of the western part of the sett, where the lode is large and well-defined, and easier for exploring. They have 113 hands employed.

At the Great Barrier Land, Harbour, and Mining Company general meeting, on Tuesday (Col. Bazalgette in the chair), it was agreed that an adjournment should take place to such a day as may be fixed by the directors, not later than three months from this date, for the purpose of receiving fuller accounts, with balance-sheet, which is to be previously circulated amongst the shareholders, and for the further consideration of the directors' report. Details in another column.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the four months ending April 30, 1864; and also as compared with the four months ending April 30, 1863; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE FOUR MONTHS ENDING APRIL 30.

	1863.		1864.		Increase.
Coals and culm	£1,111,327		£1,267,487		£156,160
Hardwares and cutlery:—					
Surgical instruments	£ 86,320		£112,679		
Agricultural implements	113,796		140,453		
Other sorts	799,386 =	999,502	926,130 =	1,179,262	179,760
Machinery:—					
Steam-engines	503,293		424,699		
Other sorts	655,101 =	1,158,394	827,178 =	1,251,877	93,483
Total	£	3,269,223	£	3,698,626	£429,403
Metals:—Iron—Pig	£ 385,819		£ 412,412		
Bar	765,776		932,547		
Railroad	876,527		1,135,879		
Wire	140,183		112,238		
Ditto telegraphic	36,475		74,983		
Castings	230,105		187,715		
Hoops	441,275		576,654		
Wrought	616,895		668,643		
Old	24,628 =	3,517,684	12,906 =	4,113,977	596,293
Steel		267,957		346,224	78,267
Copper—Unwrought	352,322		152,407		
Wrought	758,554		680,150		
Other sorts	18,289 =	1,131,165	18,157 =	850,714	—
Brass		60,819		61,938	1,119
Lead—Pig	256,031		286,037		
Ore	50,281 =	306,312	52,210 =	338,247	31,935
Tin—Unwrought		134,297		158,005	23,708
Tin-Plates		435,949		486,039	50,090
Zinc		27,000		41,112	14,112
Grand total	£	9,150,406		£10,094,882	£1,224,927
Less decrease—Copper					280,451
Total					£ 944,476

THE COPPER TRADE.—Mr. J. Pitcairn Campbell, of Liverpool, reports:—Since my last smelters have been firmer, and, though there is still some underselling, generally full quotations are demanded for English copper. The market presents an improved appearance; but, the shipments from Chili continuing on a full scale, importers of the raw material are willing sellers at late rates. The shipments from there during the first quarter to all parts will exceed 15,000 tons of pure copper; but this is accounted for by the sending forward of accumulated stocks, and it is confidently asserted that the second three months will show a very considerable diminution. Quotations are 17s. for ore and regulus, 86*l.* for bars, and 18s. 6d. for barilla. Transactions since my last have been:—

May 16.—270 tons	Cape copper ore, by tender	£ 0	16	10½ per unit.
„ 17.— 85 „	barilla, per "Inca," for 20 cwts.	0	17	6 „
„ 17.—465 „	regulus, to arrive, per "Patagonian," Swansea	0	17	0 „
„ 18.— 50 „	bars, for distant arrival	89	10	0 per ton.
„ 19.—250 „	regulus, to arrive, per "Illimani"	0	17	0 per unit.
„ 24.—165 „	regulus, to arrive, per "Illimani"	0	17	0 „
„ 24.—380 „	regulus, at Swansea, "Robert Bright"	0	17	0 „
„ 26.—324 „	California ore, by tender	0	16	3 „

The arrivals have been since my last from West Coast—

	Ores.	Regulus.	Barilla.	Bars.
"Thomas Daniel," Arica	—	—	45	—
"Ann Chesshyre," Valparaiso	—	—	—	100
"William Turner," Tocopilla	370	300	—	—
"Darien," Colon	—	—	110	—
"Illimani," Carisal	—	415	—	185

The stocks in first and second hands likely to come on the market are—

Ore.	Regulus.	Bars.	Barilla.
2040	1120	2560	—

Tin is rather better, and Straits has been sold in fair quantities, at from 109*l.* to 110*l.*, three months prompt.

DUBLIN, JUNE 2.—The accounts of the General Mining Company for Ireland, just issued, contain nothing to account for the recent depreciation in the shares. The disbursements and prospective outlay are, no doubt, considerable, but the proprietors will, hereafter, reap advantage from this expenditure. There has been realised from zinc ore 2418*l.*, and from lead 1276*l.* In the share market generally dealings have been moderately active, but business is becoming more circumscribed. The tone in railways continues heavy, and the traffic returns this week are unfavourable. In bank shares operations have been only on a limited scale, with the tendency of prices in a downward direction, and there has been a day a complete dearth of business. In steams the only change of importance of late has been the fall in the City of Dublin Steam Packet Company stock without apparently any special cause, but the quotation is now firm. The dulness which has so long prevailed in mines has been relieved by large operations in Mining Company of Ireland shares, which have been freely taken at improved prices, owing to a report of some further favourable indications at Knockmahon Mines; Connorrees have also slightly advanced, but Wicklow Coppers have declined.

NEWCASTLE-ON-TYNE, JUNE 2.—The Mining Market during the past fortnight has been marked by general quietness. Wentworth Consols, Chiverton, &c., were operated in, but, on the whole, business has been quiet. East Lovells have been enquired for, but, from the many extraordinary reports on this property, the public seem puzzled, and, perhaps, it would be wise on their part to keep out at present quotations. —EDWARD BREWIS.

MANCHESTER, JUNE 2.—The enquiry for Great Laxey shares has declined here, the price being now so high, and buyers not caring to give sellers' quotations. Great Caradon shares are still enquired for at nominal figures. The West Vowsog Lead Mine continues to progress favourably, good lead being found at 7 fms., with improving prospects at increased depths. The shares are firmly held, and are fully expected before long, to be selling at 6*l.* or 7*l.* prem. There has been an absence of business in dividend mines, more from the state of the metal market than any other cause.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following—

G. J. WORSSAM, Wenlock-road, City-road, Middlesex.—Improvements in machinery and apparatus for expressing liquids or moisture from substances. April 23.

F. LEISZ, No. 7, New Coventry-street, Leicester-square, Middlesex.—Improvements in the manufacture of syrups. April 30.

E. BEANES, 24, Argyll-street, Middlesex.—Improvements in sugar-boiling.

H. AITKEN, Falkirk, in the county of Stirling, North Britain.—Improvements in the system or mode of calcining and extracting the oils and gases from ironstone and other materials. May 9. [stuffs from manna sugar. May 10.

J. A. WANKLYN, at the London Institution.—For the manufacture of purple dye-

J. CORRY, Duncon, North Britain.—Improvements in centrifugal machines for extracting the syrups from sugar. Dec. 11. [sugar. Dec. 1.

G. J. DODDRELL, Glasgow.—Improvements relating to the manufacture or refining of

J. THON, Hull.—Improvements in apparatus to be employed in expressing oils and fatty matters. Dec. 1.

LIST OF SPECIFICATIONS published during the week:—

Magazines for storing volatile oils, 4d.; burners for mineral oils, 10d.; centrifugal machines for treating saccharine substances, &c., 1s. 8d.; casks or receptacles for oil, petroleum, &c., 4d. L. DE FONTAINEMOREAU.

To Directors, Solicitors, Secretaries, &c.

IMPORTANT TO ALL CONNECTED WITH PUBLIC COMPANIES.—Now ready, price 2s. 6d., A HANDY BOOK OF WHAT TO DO AND HOW TO DO IT, IN ORDER TO FORM ANY MERCANTILE, MINING, AND OTHER JOINT-STOCK, COMPANIES. Designed as a PRACTICAL GUIDE for Projectors, Promoters, Directors, Shareholders, Creditors, Solicitors, Secretaries, and other officers By THOMAS TAPPING, Esq., of the Middle Temple, Barrister-at-Law. London: Published at the *Mining Journal* office, 26, Fleet-street, E.C., and to be had of all booksellers and newsmen.

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LEAD ORES.

Mines.	Tons.	Price per ton.	Purchasers.
Sold on the 27th May.			
Cargoll	60	£18 3 6	J. & S. Williams.
Sold on the 28th May.			
Newton	5	14 18 6	Sims, Willyams, & Co.
Sold on the 30th May.			
East Logyias	70	14 13 0	Mining Co. of Ireland.
Glogfach	65	18 11 6	ditto
Cwmystwith	100	14 11 0	Sims, Willyams, & Co.
Sold on the 31st May.			
Maesyafn	140	15 1 0	ditto
Sold on the 1st June.			
Dyliffe	48	14 16 6	Walker, Parker, & Co.
ditto	44	14 16 0	Brymbo Co.

BLACK TIN.

Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
Sold on the 28th May.				
North Jane	1 16 3 16	—	£ 106 1 4	—Daubuz & Co.
Sold on the 1st June.				
St. Day United	45 5 0 4	—	2517 2 6	—
Sold on the mine.				
Great Wh. Busy	17 0 0 0	—	952 14 6	—

COPPER ORES.

Sold on the 28th May.

Mines.	Tons.	Price per ton.	Purchasers.
Great Laxey	55	£5 4 0	Sims, Willyams, & Co.
ditto	55	5 4 0	St. Helen's Co.
ditto	55	5 4 0	Newton, Keates, & Co.

COPPER ORES.

Sampled May 18, and sold at Tyack's Hotel, Camborne, June 2.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Clifford Amalgamated	94	£4 7 0	West Seton	31	£2 16 0
ditto	93	5 15 0	East Pool	65	0 3 6
ditto	83	5 8 6	ditto	56	2 19 6
ditto	75	5 9 6	ditto	53	4 1 0
ditto	67	5 4 6	ditto	50	2 10 0
ditto	66	10 10 6	ditto	49	4 4 0
ditto	61	4 11 0	Wheal Basset	52	4 10 0
ditto	60	4 6 0	ditto	45	5 12 0
ditto	57	10 18 0	ditto	28	11 3 0
ditto	56	4 12 6	ditto	22	13 8 0
ditto	41	9 17 0	South Tolgus	73	5 6 6
ditto	31	3 10 6	ditto	68	5 1 0
ditto	29	2 5 0	South Frances	37	4 14 6
ditto	25	5 2 0	ditto	35	4 14 6
Consols	41	7 1 6	ditto	26	5 16 0
ditto	32	10 4 6	ditto	24	6 7 0
Wheal Seton	30	3 7 0	Dolcoath	58	4 8 0
Pendarves	161	1 1 0	ditto	54	5 10 0
ditto	95	5 12 6	West Tolgus	95	6 8 6
ditto	81	5 12 6	ditto	14	4 10 6
ditto	63	4 2 6	East Basset	40	10 1 0
ditto	56	4 10 0	ditto	30	4 5 0
ditto	23	14 6 6	ditto	20	11 0 0
West Seton	88	7 3 6	South Crofty	45	2 2 6
ditto	66	4 5 0	ditto	26	6 5 6
ditto	65	9 4 6	Tincroft	37	2 14 6
ditto	50	5 6 0	ditto	13	8 0 6
ditto	48	4 8 0	Condurrow	41	4 5 6
ditto	47	5 8 6	ditto	6	4 8 6
ditto	42	4 5 6	Camborne Vean	17	2 4 0
ditto	37	5 19 0	Stray Park	15	4 0 0
ditto	34	1 4 6	Michell's Ore	1	4 19 0

TOTAL PRODUCE.

Clifford Amalgam.	910	£5582 10 6	West Tolgus	109	£ 872 14 6
W. Seton & Fend.	809	2100 18 0	East Wh. Basset	93	749 10 0
West Seton	808	2770 17 0	South Crofty	71	258 15 6
East Pool	273	723 8 6	Tincroft	50	205 3 0
Wheal Basset	147	1093 0 0	Condurrow	47	201 16 0
South Tolgus	141	732 2 6	Camborne Vean	17	37 8 0
South Frances	122	643 8 0	Stray Park	15	60 0 0
Dolcoath	112	552 4 0	Michell's Ore	1	4 19 0

Average Standard.....£121 2 0 | Average Produce 6⅘
Average Price per ton £5 5 0
Quantity of Ore.....3122 tons | Quantity of Fine Copper, 206 tons 5 cwts.
Amount of Money £16,389 15 0

LAST SALE.—Average Standard.....£121 9 0.—Average Produce 6⅘
Standard of corresponding sale last month, £119 16 0.—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	390½	£2615 0 3
Freeman and Co.	228	1257 7 1
Grenfell and Sons	223	1642 5 10
Sims, Willyams and Co.	212	1371 0 0
Williams, Foster, and Co.	395 5–6	2284 0 6
Mason and Elkington	475¼	2610 11 8
Bankart and Sons	223½	1051 8 6
Copper Miners' Company	288 3–5	1077 7 6
Charles Lambert	462 5–6	1668 14 6
Sweetland, Tuttle, and Co.	201¾	740 5 8
Penclawdd Copper Co.	22	91 13 6
Total	3122	£16,389 15 0

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Carn Brea 339—West Basset 330—Prosper United 258—East Carn Brea 154—Rosewarne Consols 132—Great South Tolgus 125—Par Consols 120—Charlotte United 113—Copper Hill 108—Wheal Uny 86—Rosewarne United 73—West Fowey Consols 70—New Rosewarne 68—Wheal Anna 55—West Alfred Consols 55—Pendeen Consols 53—Wheal Curtis 32—Gurlyn 26—South Dolcoath 18—Wheal Agar 13—South Carn Brea 13—West Trevelyan 11—West Wheal Grylls 5—Camborne Consols 4—New Hendra 3—Pembroke 2.—Total, 2266 tons.

NO SALE on Thursday week, June 16, 1864.

Copper ores for sale at Swansea, June 14.—Cobre 740—Berehaven 550—Knockmahon 472—Connorree 181—Moonta 120—Western Australia 110—Spanish ore 57—Burnt ore 45—British Regulus 37—Californian 29—New Cornwall 22—Cronebane 24—Dyfngwm 14—Tigrony 11—Gourock 11—Cape ore 3—Australian ore 3—Cronebane 2—Tigrony 2.—Total, 2433 tons.

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Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *filed* on receipt: it then forms an accumulating useful work of reference.

LIGHTING MINES WITH PARAFFIN OIL.—Can any of your readers inform me why paraffin oil is not used in lighting mines instead of candles? It appears to me that a saving of from 50 to 60 per cent. could be effected by the use of the former. The present system of lighting by having a candle at the top of each miner's head seems to admit of improvement.—W. S.

GREAT WHEAL METAL.—On looking this morning at the plan inserted in the Supplement to the Journal of May 14, I noticed a singular error, the fault, I presume, of the engraver—"ironworks," instead of "Treworlis," the name of a farm. The district is the most distinguished in the world for tin; but I know of no iron lodes within it.—R. SYMONS.

NAPHTHALINE FUEL.—As an interested party in economising fuel, I shall be glad to learn if Mr. A. Wall's "naphthaline fuel," or "olate of coal," can be used in the reduction of zinc ore, so as to lessen the very large quantity of ordinary fuel at present required for that purpose?—CONSTANT READER.

IMPROVED MINING MACHINERY.—A recently-formed mining company, about commencing operations on a large scale, are desirous of obtaining information as to the best description of materials and general appliances required. With this view, they propose to give a sum of 20*l.* for a good epitome of the most approved machinery and mechanical apparatus essential for an extensive mining establishment. No elaborate details are required, merely a brief recital of inventions or articles, with their chief points of excellence, names of makers, prices, &c.—the object being to acquire precise particulars of the more recent improvements in mining and mechanical engineering materials before giving out their orders.

[A cheque for the above amount has been handed to the Editor of the *Mining Journal*, who has undertaken to forward all papers received to the donors, and to pay the amount to the writer of the one which they shall deem most deserving of it. It will, of course, be understood that the prize paper will be published in the Journal. All others will be returned, or published, as may be arranged. The desire to procure the most efficient machinery not being by any means confined to those offering the present premium; the Editor will undertake to publish brief mechanical descriptions of any improved apparatus which may have been invented by those not disposed to treat the subject generally, upon being furnished with the necessary particulars.]

*** With the Journal of May 21 a SUPPLEMENTAL SHEET was given, which contains—The Great Wheal Vor Mining District; On the Mechanical and Chemical Treatment of Gold and other Metals; Professor W. W. Smyth on the Ventilation of Mines, at the Royal School of Mines; On Fuel; Application of Electricity in the Manufacture of Steel; Novelty in Shipbuilding; Extracting Gold from Sludge; Large Mass of Native Copper; Reports from Foreign Mines; Carn Camborne; Progress in Spain; The Operation of the Patent Laws, with Suggestions for their Better Administration; Geometrical Drawing; Mining and Metallic Production in the United States; The Gold-digging in New South Wales; The Copper Trade, &c.

*** With the Journal of May 14 a SUPPLEMENTAL SHEET was given, which contains a Plan of the Great Wheal Vor Mining Districts; Plain Papers on Geology: No. II.—Bolivia, and its Resources—Transactions of the North of England Institute of Mining Engineer—the Institution of Mechanical Engineers; the Institution of Civil Engineers; the Foremen Engineers—Atmospheric Gas—Pumping Engines—New Patents—Iron Architecture—Induration of Iron—Improvements in Iron Making—Reports from Foreign Mining Companies, &c.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JUNE 4, 1864.

Marvellous results of our commercial energy are again shown by the returns from the Board of Trade respecting the exports and imports of the United Kingdom. These tables, now before us, are for the month and the four months ending April 30, and give us the aggregate value of the exports of articles, the produce and manufacture of this country, no less a sum than 49,892,420*l.*, which is equivalent to the enormous amount of 149,677,260*l* for the year; while for the same period of 1863 the total was 39,458,381*l.*, giving an excess, therefore, of 10,434,039*l.* over last year, and equal to an increase of 31,302,117*l.* for the current 12 months. The total for the first four months of 1862 was 36,246,651*l.*, so that the present returns are an excess of 13,645,769*l.* over that period. For the month of April the amount declared is 13,225,039*l.*, against 11,897,177*l.* in April, 1863, and 9,822,888*l.* in April, 1862.

In only one item connected with mining industry is there a falling off, as compared with last year, and which is in copper, to the extent of 280,451*l.*, the difference between 850.714*l.* in this year, and 1,131,165*l.* in 1863. The total amount is 10,094,882*l.* for this year, which is equivalent to upwards of 30,000,000*l.* for the 12 months, against 9,150,406*l.* in 1863, which is an increase of 944,476*l.*, after allowing for the decrease in copper. Iron shows an excess of 596,293*l.* over last year, the difference between 4,113,977*l.* and 3,517,684*l.*; machinery, 179,760*l.*; coals and culm, 156,160*l.*; machinery, 93,483*l.*; steel, 78,267*l.*; tin-plates, 50,090*l.*; lead, 31,935*l.*; tin unwrought, 23,708*l.*; zinc, 14,112*l.*; and brass, 1119*l.*

In the precious metals the balance of trade is in our favour on the business of the four months to a small extent, but against us on the transactions of the month. During the longer period we imported 9,898,944*l.*, and exported 9,854,263*l.*, a difference of 44,681*l.*; but for the shorter period our receipts were only 2,150,514*l.*, while the shipments were 2,530,977*l.*, or 380,463*l.* to our loss. The exports during the four months consisted of 5,688,217*l.* in gold, and 4,166,046*l.* in silver; and the imports were 5,583,504*l.* in gold, and 4,365,440*l.* in silver. For the month the exports were 1,676,411*l.* in gold, and 654,566*l.* in silver; and the imports, 1,424,664*l.* in gold, and 725,850*l.* in silver. The business of the four months comprised exports to the extent of 4,155,225*l.* to Egypt, in transit to India and China, against 828*l.* received; 3,662,464*l.* to France, against 689,605*l.*; 789,002*l.* to Brazil, against 36,135*l.*; 510,703*l.* to Spain, against 10,976*l.*; 154,617*l.* to Holland, against 97,339*l.*; 70,454*l.* to Malta, against 292*l.*; 58,406*l.* to British South Africa, against 3458*l.*; 53,037*l.* to British North America, against 40,630*l.*; and 144*l.* to Turkey, against 128*l.* received. On the other hand, we imported 4,787,095*l.* from Mexico and South America, and sent 96,147*l.*; from the United States 1,930,880*l.*, against 115,165*l.*; from Australia 1,150,186*l.*, against 526*l.*; from Belgium 677,950*l.*, against 124,417*l.*; from Hanse Towns 334,853*l.*, against 21,682*l.*; from Portugal 32,520*l.*, against 899*l.*; from West Coast of Africa 34,116*l.*, against 28,051*l.*; from Gibralta 9874*l.*, against 2511*l.*; and from "other countries" 61,989*l.*, against 10,813*l.* exported. In alluding to these accounts of the dealings in gold and silver, our contemporary, the *Times*, aptly remarks that from them it would be easy "to construct a map of the gold stream of bullion. From Australia and Central America the treasures of gold and silver flow towards our islands, and there parting the gold pours over the Continent; while the silver, augmented by a return tide from France, flows through Egypt to the East. The course is perfectly constant and well defined, and may doubtless be explained by political economists, but we are content to regard it as a branch of the great river of commerce which deposits its riches over all the world."

It is interesting to observe that for this wonderful trade now going on in our general exports no less than 13,803 vessels were engaged during the four months, whose aggregate tonnage was 3,721,955. Of these, 1802 went to British possessions, and 12,001 to foreign countries, the former giving a total tonnage of 800,183, and the latter 2,921,772.

THE ENGLISH COPPER TRADE.

There is not one of the Parliamentary Returns of more interest to the miner and smelter than that obtained by Mr. DAVEY, annually, of all the imports and exports of copper, tin, zinc, and lead, throughout the United Kingdom. Coupling these returns with the annual produce of our British mines, as given by Mr. HUNT, from the Mining Record Office, we arrive at some interesting conclusions bearing on the sources of our metal supply, and on the markets that consume that produce. In undertaking a survey of this branch of the metal trade, we can but be struck with the important position our colonies occupy; and of all, India stands most conspicuously as the consumer of one-third of all the wrought copper exported from England last year. This is an astonishing fact, especially when we remember that a large quantity of copper finds its way into the Indian market direct from Australia. Great, however, as has been the demand for metals from India, we may confidently look to that country as a channel for even larger demands. The tide of events has now for some years past tended to increase the importance of this the largest of our possessions. Four years ago the outbreak of the American war created a demand for cotton, a product which the wastes of India were found well calculated to yield. Thus, by means of English capital, vast cotton fields were planted, the fibre from which it was essential to throw as quickly as possible into the European markets. To effect the quick transit of this new export, railroads sprung up in all directions, and we have now the east and west shores of that continent connected by steam. The consumption of metal necessary to develope the new system of communication has been enormous, and England has derived the greatest advantage therefrom, in that she has supplied the metal required to carry out this great movement. The correctness of this assertion will be the more apparent when we compare the exports from England to India last year with the amount consumed by that country five years before. In 1859 we exported to India 6866 tons; in 1863 we sent to the same country 14,406 tons.

Now, England has always been the largest smelter of copper, for two reasons—Firstly, she produces the copper ore to be smelted; and, secondly, the coal wherewith to smelt it. These two great resources have always given to England an ascendancy in the copper trade which no foreign rival has been able to compete with. For this reason it is France comes to England for her copper, and we, therefore, find she consumes, next to India, the largest portion of our exports. In quoting the amount of her consumption last year, as compared with that five years ago, we shall see an instance of the great advantage that country has derived from the steady rule with which she has for many years been blessed. In 1859, France consumed 4516 tons of our copper, whilst in 1863 she consumed 9371 tons.

Next to France in importance as a consumer of British copper comes Egypt, to which country was imported last year 2613 tons, as compared with 400 tons sent to that market in 1859 from English ports, proving how great must have been the progress of that country in that period. Italy follows close on Egypt in her demand for copper, having consumed in 1863, 1660 tons, against 509 in 1859. To Russia we sent last year 1176 tons of copper. This we may almost consider a new market, as Russia has hardly figured at all before in our exports during the last five years.

There is one country which we have not yet mentioned—the United States, almost the only one in the returns that lie before us which now consumes less than she did five years ago. We observe that we exported to the United States in 1859 nearly 1200 tons, and that in 1863 we only sent there 300 tons; this, however, is but one small branch of England's trade that has been crippled by the fearful war raging in North America; a war which is as much opposed to every mercantile interest in England as it is to the feeling of every civilised man.

We may add to the list of countries above enumerated which are consumers of British copper, and arrange them according to the amount of their demand, as follows:—Turkey, the West Indies, Australia, China, Brazil, and others of less importance, combining to make the sum total of our exports of copper last year 43,083 tons, exclusive of ore; as compared with the total exports in 1859, which were only 22,788 tons. In this, as in many of the preceding items, we see matter for encouragement, but before enumerating these let us enquire whence comes the ore from which all this copper has been obtained?

Chili yielded last year 25,966 tons of copper ore, the average percentage of which we may estimate at 25; she also yielded 18,708 tons of regulus, averaging from 40 to 50 per cent. metal, besides 6482 tons metallic copper.

We see in these numbers a decrease in the imports from the same country, compared with 1862, of about 1000 tons of ore, of 13.300 tons of regulus, and an increase of 1000 tons in the amount of metallic copper. The conclusion to which these figures would naturally lead us is, that since the discovery of the large coal fields of Southern Chili it has been thought more profitable to smelt the ore on the spot than to send it to Swansea. Such an attempt will, however, as surely lead to failure as it did when tried some years ago. We think we are safe in asserting this as a fact, since we have had the opportunity of conversing with those practically employed in the copper smelting works at Caldera, who assure us that it has been proved more profitable to export to England copper ores above 20 per cent., but that for ores yielding less than that amount (that is, from 15 to 20 per cent.) it pays to reduce such to a state of regulus, but not to bring them to a state of fine copper. That the supply of copper from Chili is likely to be lessened to any great extent we cannot believe, although the supply of rich ores will probably be much diminished; and, when this takes place, the ores of lower percentage will be carefully collected for reduction to regulus, and so counteract the deficiency. Cuba sent to England last year 15,570 tons of ore, being a great diminution on our usual supplies from that country. Australia and Bolivia send about equal quantities of copper ore to the English market, the former, however, smelts most of the produce of her mines, and supplies the East with copper; the latter sends her entire supplies to England and France. From Spain the imports show a steady increase, not only of ore, but also of metal. From thence England received last year 8685 tons of ore and 1290 tons of metal. Numerous other sources of copper there are of which, as the most important, at present, we may mention Peru, Italy, Portugal, and the Cape, making the total of our copper supplies last year in ore 80,693 tons, in the form of regulus 21,406 tons, and as smelted copper of all kinds 22,081 tons. Now, as to our British copper mines, we may roughly estimate their yield last year at 12,000 tons of fine copper. In this item we have a decided falling off, as compared with preceding years, not that we believe the copper is exhausted from those regions which have already yielded so enormously, but that no great finds of copper veins have been lately made.

Having thus cast a retrospective glance at the sources of our copper ores, and the channels for their consumption, let us say a few words as to the future. At the same time, we must acknowledge the impossibility of foretelling with any great accuracy the probable yield of the great copper districts of the world. Thus far we may, however, commit ourselves, and say that the total supplies of copper from Chili are not likely to diminish to any great extent. This spring's supplies are something in corroboration of this, and we did not hesitate to foretel their advent some time ago, despite many gloomy prognostications in the market to the contrary. The mines of Australia seem to be richer and richer, as also do those of Spain, Bolivia, Peru, and the Cape. Taking it, however, as an assumption that we have an increase in our copper supplies, we may certainly expect a vastly increasing demand—a demand which must of necessity increase with the rapid spread of civilised man over the earth.

THE PARAFFIN OR COAL-OIL CASE—YOUNG v. FERNIE.

Among the numerous cases of patent litigation there are few which present more remarkable features of interest than the trials that have arisen out of the patent granted to Mr. James Young, of Manchester, for the manufacture of oil and paraffin. On two previous occasions the validity of this patent has been contested, and, now that the period for which the patent was granted has nearly expired, a third trial has just been concluded, which occupied 34 days, and extended over more than two months.

The distillation of coal, for some purpose or other, has long been practised, and it is known that in this distillation, as in the distillation of wood or any analogous material, a certain amount of oily product is obtained, which differs both in its character and amount, according to the kind of coal distilled, and according to the temperature at which the distillation is conducted. The more bituminous the material, or the more it approximated to bituminous substances in its chemical nature, the greater the amount of oil obtainable from it by distillation. When the use of coal gas for lighting was introduced, it soon became known that in the distillation of coal the relative amounts of gas and of oily product were in a great measure determined by the degree of heat applied to the coal; that the bituminous portion of coal, which yields under influence of heat both the gas and the oil, was capable of being converted into gas or into oil, according to the temperature applied to it, and it became a generally established rule that from any given coal a greater amount of gas could be obtained by distilling at a high heat, while a greater amount of oil could be obtained by distilling at a lower heat.

The chemical investigation of the oil obtained at high temperatures, and of that obtained at low temperatures, showed that these products were widely different in their nature; and, among other things, it was ascertained that the oil obtainable from coal at a low temperature contained a substance resembling wax, to which the name paraffin was given, and an oil, or mixture of oils, which was called eupion. The applicability of these products to various useful purposes was at once recognised, and attempts were made to manufacture them on a large scale; but for a long time no material was found which would yield them in sufficient abundance, and most of these attempts were unsuccessful, until the year 1850, when Mr. Young obtained a patent for the manufacture of paraffin and paraffin oil from coal. The method by which this was effected consisted in distilling the coal in a retort which was gradually heated up to a low red heat, and then kept at that temperature until volatile products ceased to come off from the coal. The crude product of this operation was an oil containing paraffin, which the patentee termed paraffin oil.

Shortly afterwards an action was brought by the patentee against Messrs. White, of Liverpool, for infringement of this patent, and one of the points contested at the trial was, whether paraffin had ever been obtained from coal before the date of the patent. Several eminent chemists, including Mr. Graham, Dr. Stenhouse, Dr. Hofmann, Dr. Playfair, and Dr. Fyfe, stated in evidence that they did not know of paraffin having been obtained from coal before the date of Young's patent. The defendants, on the other hand, brought evidence to show that it had been obtained from coal by Reichenbach in 1830, and that this fact, as well as the method of obtaining it from coal, had been published in this country in various books. In this case Lord Campbell, in his charge to the jury, remarked that it appeared the chemists who gave evidence for the patentee could not have read the books in which the production of paraffin from coal had been published, otherwise they would not have stated several things they did state; and he added, that it seemed to him the weight to be given to their testimony was considerably lessened by their saying they did not know that by the distillation of coal paraffin could be obtained.

The question, however, was not so much as to whether paraffin had been obtained from coal, as whether the oil which accompanies paraffin had been obtained; and in both of the earlier trials arising out of Young's patent, this question was less considered than the mere production of the solid paraffin itself. In the late trial before Vice-Chancellor Stuart greater attention has been directed to the question as to the oil; but in this case, as in both the other trials, the decision was for the plaintiffs on all the issues.

The defendants in the present case are Messrs. Fernie, Carter, and Robinson, the proprietors of works for the manufacture of oil from the Leswood Cannel coal, at Saltney and Leeswood, near Chester, and the plaintiffs are Messrs. Young, Binney, and Meldrum, the proprietors of the patent, and of the oil works at Bathgate, near Edinburgh, where the Boghead Cannel coal is worked for oil.

The question at issue is, in reality, a very simple one; it is whether the method of treatment adopted by Mr. Young in the manufacture of oil and paraffin was new at the time he obtained his patent for it, or whether it was known before. There are two important limitations of this question which must be carefully borne in mind in considering it. In the first place, the method of treatment by which oil and paraffin are manufactured is to be understood as being that specified for producing the crude oil, for both the judges in the former trials decided that the subsequent operations of separation and purification directed to be applied to that crude oil are not to be regarded as claimed by the patentee; and, consequently, that the fact of their having been known and used previously does not, in a legal point of view, invalidate the patent.

It would be unnecessary in this place to refer further to the methods of separating and purifying the several constituent parts of the crude oil containing paraffin described by Reichenbach, since it has been ruled by the legal authorities that the subject matter of the patent does not comprise these methods of converting the crude oil into marketable commodities, except that it is worth noticing that in the opening of the Vice-Chancellor's judgment a passage is quoted from Reichenbach to the effect that there must be several ways of getting at paraffin, on account of its remarkable chemical stability, and this passage appears to be quoted to show that Reichenbach contemplated the possibility of producing paraffin in future by some other, and perhaps better, means than that he had made known. Nothing could be more erroneous than this; and, in fact, the passage quoted relates only to the separation of paraffin from the other substances associated with it in the crude oil, or, as Reichenbach called it, tar of carbonisation, and has no kind of application to the production of that crude oil, or of the paraffin constituting part of it.

The second of the above-mentioned limitations relates to the raw material to which the method of treatment is to be applied. The expression "certain bituminous mineral substances" is to be understood as denoting bituminous coal, and not as comprising bituminous shale; for it is well known, and admitted on all hands, that prior to the date of Young's patent the method of treatment which, according to the decision of the judges, is to be regarded as constituting the "improvements" referred to in his patent, had been applied to bituminous shale for the purpose of obtaining from it a crude oil, which by subsequent treatment was capable of furnishing the same products—oil and paraffin—as are obtainable from the crude oil from bituminous coal; therefore, it is only as regards the application of this method of treatment to bituminous coal that there is any need to consider the question as to its novelty.

In regard to this limited question, it has been laid down by Lord Campbell that if there were in England, before Mr. Young took out his patent, books clearly and satisfactorily explaining what the process was, and instructing a person to follow out the process, and to obtain the object he had in view, he would not be entitled to his patent; and that it would be very hard if, by his taking out his patent, that which was before lawful should become unlawful. This would be the case even if the books disclosing the method of obtaining oil and paraffin had been unknown to the patentee. In the Scotch trial, also, the Lord President laid it down that, in considering whether the method of treatment were new, the term novelty must be understood in the sense of substantial novelty—as indicating not merely that the very identical thing had never been done before, but that nothing was known or done before that would obviously suggest or point out to any practical man to do the same thing that Mr. Young does.

In the evidence brought forward by the plaintiffs in this case, the point most strenuously dwelt upon is the fact that Mr. Young was the first to succeed in carrying out the manufacture of oil and paraffin from bituminous minerals in this country; that he, in fact, established this manufacture here, and that, so far as coal is concerned, he was the first to attempt the production of oil and paraffin upon a large scale. From this evidence it was argued by the plaintiff's counsel, and the argument was fully adopted by the Vice-Chancellor, that the failure which had attended the attempts of

previous experimentors to obtain the results obtained by Young, was to be regarded as proof that, at the date of his patent, something remained to be ascertained which was necessary for the useful application of the chemical discovery of paraffin and paraffin oil, and that the success which attended Young's undertaking was to be regarded as proof that he had supplied that deficiency. Upon this ground the judge held that the case was illustrative of an important distinction between the discoveries of the merely scientific chemist and those of the practical manufacturer, who invents the means of producing in abundance, suitable for economic and commercial purposes, that which previously existed only as an ornament of the museum; and, regarding Mr. Young to be an inventor of this class, he decided that his patent was entitled to the protection of the law, inasmuch as he had ascertained the particular class of materials, among many, and a particular process, among many, which has enabled him to create and introduce to the public a useful manufacture, which supplies that which had never been supplied commercially until the use of the materials, the process, and the temperature indicated by him.

In opposition to this view of the case, the defendants brought forward evidence to show that when the German chemist Reichenbach first obtained paraffin, and the peculiar oils, or mixture of oils, obtainable together with paraffin, and ascertained these substances to be constant products of the action of heat upon all materials which are similar to wood, he also ascertained and showed that the production of those substances is essentially dependent upon the degree of heat at which the destructive distillation of the material capable of yielding them is conducted; that paraffin, and the oils analogous to it, are incapable of resisting the influence of a red heat, being converted at such a temperature into other products, partly gases and partly oils, of a totally different character. He showed that it was for this reason that the tar or oily product obtainable by destructive distillation from wood, flesh, or coal, consisted of paraffin, and the oils analogous to it, only when the distillation of those materials was conducted within the limits of a moderate temperature, and with scrupulous avoidance of the red heat, which had the effect of destroying them, and converting them into other products totally different. He showed that it was from the same reason that, in the manufacture of gas at a bright red heat, the tar obtained was not only less in quantity, but also of an entirely different nature from that obtainable from the same materials at a temperature never rising to redness.

Upon these grounds it was maintained by the defendants' counsel that the improvements constituting the subject matter of Young's patent, the method of treating coal for the purpose of obtaining paraffin and paraffin oil—the gradual heating of the coal until the retort containing it acquired a low red heat—was not new, inasmuch as to say that paraffin and paraffin oil are destroyed by a red heat was one and the same thing, as to say that to produce crude paraffin oil from coal care must be taken to keep the temperature of the retort from rising above that of a low red heat. Hence it was argued that Reichenbach's account of the method of obtaining crude paraffin oil from coal, and his description of the conditions essential for its production, as well as for preventing its destruction, constituted such a disclosure of the method to be adopted in the manufacture of this product, as, in the words of the Lord President, would "at once suggest and point out to the practical man the doing the very thing that Mr. Young does," in the case of any material capable of yielding the desired product. It was also argued that the connection between the capability to yield that product economically, and the particular character of the materials from which it is obtainable, was so well known that the discovery of a mineral so highly bituminous as the Boghead cannel would at once have been regarded as supplying that condition necessary for the successful manufacture of paraffin oil which was wanting at the time when Reichenbach, Dumas, Gay, Lussac, and Berzelius expressed their hope that it and paraffin might eventually be obtained cheaply enough to admit of their excellent qualities, as illuminating materials, being rendered practically available, but their was no evidence given to show that the connection between the chemical nature of coal, and its capability of being used for the economic production of paraffin oil, was known before the date of the patent.

The reply of the plaintiffs to this argument involves the application of certain fictions, which do more credit to the ingenuity than to the science of the chemists who have propounded them, and have thus led to great embarrassment in the consideration of the real question at issue. Foremost among these is the "tar" fiction, according to which is is asserted that Reichenbach did not make paraffin and oil from coal, but from coal tar; and that he did not obtain from coal by distillation crude paraffin oil but tar. This was asserted to be one of the essential differences between the operations of Reichenbach and those of Young; but there appeared to be a remarkable difficulty or disinclination to define the difference between the crude oil of Young and the tar obtainable to some extent from any bituminous coal—according to its capability of yielding such a product—by distillation at a heat below redness. Dr. Lyon Playfair, indeed, admitted that the product obtained by Reichenbach was partly paraffin oil mixed with much tar, and that Young's product consisted chiefly of oil with little tar, a difference, therefore, only of degree; but in all cases tar and oil still retained their relatively nondescript character, except, perhaps, in the case of one witness, who stoutly maintained that tar was tar, and paraffin oil was paraffin oil. The philosophy of "moder," which was so much sought for in the Scotch trial at the hands of Dr. Playfair, appears to be still awaiting his elucidation, for this remarkable criterion of tar—according to Dr. Playfair—does not make its appearance in the late trial.

Another of these ingenious fictions relates to the small quantity of the products obtained by Reichenbach from coal, and involves the tacit assumption that he did not obtain them in such large proportions as might have been done by Mr. Young's process. There is no question that he operated upon coal incapable of yielding more than a very minute relative proportion of oil and paraffin, or of the crude oil or tar consisting chiefly of those substances; a coal that would not admit even now of being used for their manufacture, and this cannot reasonably be insisted upon as showing his method of treating coal to have been different from Young's, unless, indeed, it could be shown that in the latter case a larger amount could be obtained from coal than was obtainable according to Reichenbach's directions.

Closely connected with this point of the plaintiff's case is the mystery of economical production, the true solution of which is simply the fact that the relative proportion of crude oil obtainable from coal varies according to the nature and amount of the bituminous portion of the coal. The yield of crude oil obtainable from one coal may not be more than a tithe of that obtainable from another; and, in addition to this, there is, again, the further fact, that the crude oil from one description of coal may not be capable of yielding more than half as much purified products as an equal quantity of the crude oil from another description of coal. This is really the reason of the difference between the crude oil of Lord Dundonald and Reichenbach, and that from the Boghead or Leeswood Cannels, attributed by Dr. Playfair to the method of preparation; and it is remarkable that this important fact should not have been more clearly and decisively demonstrated by the defendants, in such a manner as to leave no possibility of its being ignored, as it appears to have been by the Vice-Chancellor, from his remarks on the evidence as to the products obtainable from various kinds of coal.

It is only by means of an experimental demonstration of the necessary difference of the crude oil obtainable from different kinds of coal, that the plea of prior user, based upon the manufacture of grease from coal in Wales, can possibly be placed in such a light as to acquire any such significance it may possess as being an anticipation of Young's invention, so far as the coals operated upon were capable of yielding a product like that obtainable from Boghead and Leeswood Cannels; and, without such elucidation, it is not surprising that the Court should have regarded the immense mass of evidence on this point as unimportant.

On the question of infringement, the defendants laboured to show that they had worked at a temperature lower than a low red heat, and, therefore, not in accordance with Young's specification, and that such a temperature is best for the production of oils and paraffin; but the Vice-Chancellor held that the evidence brought forward for this purpose entirely failed to establish as a fact that they had not used the same limit and gradation of temperature, or that a limit of temperature lower than that specified by Young is the best. It was maintained by the plaintiff's counsel, and recognised by the judge, that there was, in regard to this point, some confusion between the heat applied to the outside of the retort and the heat of the material within.

A variety of other subordinate questions gave rise to the production of a vast amount of evidence, one of the most important points being the difference between coal and bituminous shale, and it was contended by the defendants that as regards the nature and origin of these materials they were so analogous and, for the purposes of the manufacture, so similar that a method of treatment applicable to the one would necessarily be applicable to the other; and, consequently, that the application to bituminous shale, of the method specified by Young in respect to coal should be regarded as precluding the possibility of a patent being maintained for this latter application of that method. In connection with this point, it was shown that opinion is still divided as to whether the Boghead mineral should be considered as a coal or a bituminous shale, and that, even admitting it to be a coal, it is one of such a character that it stands on the extreme verge of the class of coals, and just at the boundary line which is drawn between those bituminous minerals used as fuel under the name of coal, and those more earthy bituminous minerals which are not used as fuel, and are termed shale.

JOINT-STOCK ENTERPRISE.

It is only when we get the "figures of the thing" that we are enabled fully to appreciate the magnitude and incessant activity of joint-stock enterprise in this, after all, great and glorious country of ours. Thus, although 1863 was not a particularly brilliant year, albeit it was an improvement upon 1862, the public works for which parliamentary sanction has been applied in the current session would appear to have altogether involved a proposed capital of 79,036,025*l.* Our contemporary, the *Economist*, calculated recently the annual savings of the population of the United Kingdom at 130,000,000*l.*, so that, after all, the promoters of the current year's suggested legislation appear to have kept within the mark. Some of the projects brought forward, especially by the railway interest, are wild and useless, and will never be carried out; but, even supposing that only one-third of the schemes proposed are prosecuted to the full extent, the capital which they would involve would be still 26,000,000*l.* or 27,000,000*l.*, which must be admitted to be pretty well for one year. The twelve great railway companies—the Caledonian, Great Eastern, Great Northern, Great Western, Lancashire and Yorkshire, London and North-Western, London and South-Western, London, Brighton, and South Coast, Manchester, Sheffield, and Lincolnshire, Midland, North-Eastern, and South-Eastern—propose altogether to raise 13,920,763*l.* The two monster incorporations, the London and North-Western, and the Great Western, are singularly moderate, the former only going for an additional 400,000*l.*, and the latter for 500,000*l.*, while the London, Brighton, and South Coast requires 2,325,000*l.*, and the Great Eastern 2,191,330*l.* The North-Eastern originally proposed to raise 1,830,000*l.*; but as this great company has abandoned its Leeds extension and central station, this amount finds itself reduced to 482,667*l.* The South-Eastern, stimulated by the competition of the London, Chatham, and Dover, applied for 1,524,000*l.*; the Midland stands next, with 1,345,200*l.*, and the Great Northern with 1,210,000*l.* We now come to more moderate figures, the Lancashire and Yorkshire contenting itself with an application for 733,300*l.*, while the London and South-Western figures for 712,000*l.*, the Caledonian for 633,300*l.*, and the Manchester, Sheffield, and Lincolnshire for 516,633*l.* These totals will, after all, probably prove less formidable than they appear at first sight, as some schemes are never intended to have more than a paper existence, or are abandoned on more mature consideration, after having been fought for with almost desperate eagerness. Nevertheless, the credit of these great companies stands high; they can procure by preference shares and debentures almost any amount which they may require; and, so long as this is the case, they will, probably, continue to seek restlessly to extend their undertakings, and encroach greedily on each other's territory. Some of the schemes brought forward this session remain records of human folly. Thus there was the Beckenham, Lewes, and Brighton (the competing Brighton line), which required 3,333,000*l.*; the Charing Cross Northern Railway, 2,650,000*l.*; the Charing Cross Western Railway, 3,450,000*l.*; the East London Railway, 2,685,000*l.*; the Hampstead, Midland, North-Western, and Charing-Cross Junction Railway, 1,320,000*l.*; the London Low Level Railway, 5,333,000*l.*; the London Main Trunk Underground Railway, 2,000,000*l.*; the London Union Railways, 6,666,000*l.*; the Metropolitan District Railway, 12,000,000*l.*; the Metropolitan Grand Union Railway, 5,330,000*l.*; the North and South London (High Level) Junction Railway, 3,000,000*l.*, &c. The success of the Metropolitan line seems fairly to have turned the heads of city speculators; but, with the experience of the Blackwall, Greenwich, &c., before us, we can hardly suppose for an instant that half these wild and reckless schemes, of which we have not had patience to compile a complete list, will ever be carried to a successful consummation.

If, however, some follies have been brought under the consideration of Parliament, some very solid and useful projects have been proposed for its adoption. Thus, 360,000*l.* has been asked for the improvement of the water supply of Belfast; 530,000*l.* for Blyth Dock; 350,000*l.* for Bolton improvements; 220,000*l.* for Brading Harbour; 400,000*l.* for Bridport Harbour, Railway, and Pier; 393,300*l.* for Bristol Port and Channel Docks; 1,200,000*l.* for the Bute Docks, Cardiff; 335,000*l.* for the water supply of Chelsea; 116,000*l.* for the water supply of Cheltenham; 496,000*l.* for the further improvement of the Clyde navigation; 545,500*l.* for the Commercial Docks and Grand Surrey Docks and Canal; 625,000*l.* for the improvement of the Dee; 320,000*l.* for the Downs Docks; 75,000*l.* for Exmouth Docks; 250,000*l.* for Falmouth Docks; 266,665*l.* for Fleetwood Docks; 100,000*l.* for the improvement of Hartlepool Harbour; 133,300*l.* for Hubberston Docks; 150,000*l.* for Hull Docks; 395,000*l.* for public improvements at Liverpool; 305,000*l.* for the improvement of Llanelly Harbour; 667,515*l.* for measures required in connection with the amalgamation of the London, St. Katharine, and Victoria (London) Docks; 266,600*l.* for Lymington Harbour and Docks; 875,000*l.* for dock extension at Liverpool; 680,000*l.* for Millwall Canal, Wharf, and Graving Docks; besides other projects too numerous to be particularised. On all sides we see, in fact, evidences of an ever-extending enterprise.

THE TRADE OF THE COUNTRY, AND SCOTCH PIG-IRON.—Commercial life is, indeed, marvellous in its play of millions, its profits and losses, its pleasures and pains, with all their crossing and conflicting lights and shadows. In spite of the civil war which rages with unabated fury in America, it is an infinite satisfaction to know that the Trade and Navigation Returns for the quarter just past show abundant signs of returning prosperity. The riches of the world flow into the country with greater profusion than ever, and our produce is more and more dispersed abroad. The declared value of the exports of the quarter has still largely increased: it amounted this year to 36,660,000*l.*, while the corresponding amounts in 1863 and 1862 were 27,500,000*l.* and 26,400,000*l.* respectively. In the case of the exports, we have returns for another month, which show that April continued the prosperity of the quarter; the declared value of the exports in April amounted to 13,220,000*l.*, against 11,890,000*l.* in 1863. It is gratifying to note the fact that we are yearly increasing our exports of iron and railway materials to all parts of the world. So far as can be ascertained from the hills in the hands of the banking and discounting establishments, trade generally was never sounder or more prudently conducted, and in all the manufacturing districts there is increasing activity. Apprehensions of a great drain of gold to pay for cotton having subsided, the money market shows increasing ease. The shipments of pig-iron from Scotland continue on a large scale; they were last week 14,616 tons, against 11,037 tons in the same period of last year. Under such circumstances it will not be surprising that its price should again advance.

THE FOREIGN COAL TRADE.—It is worthy of note that the revival in the export of coal to France which has been observed all through this year still continues, the total deliveries in that direction having been 492,742 tons to April 30 this year, against 433,716 tons in the corresponding four months of 1863, and 476,696 tons in the corresponding four months of 1862. The depression which ensued last year has thus been more than recovered. Notwithstanding the development of various coal mining enterprises in Spain, that country also took from us 242,708 tons in the first four months of the current year, against 177,356 tons in 1863. The coal exports to Italy also show a considerable advance this year. Notwithstanding the progress realised in these directions, however, the general coal exports of April were slightly below the standard of the corresponding month of 1863, having amounted to 784,371 tons against 792,531 tons. This result is more than accounted for by the decline in our exports to Prussia, to which we sent only 18,388 tons in April, as compared with 52,027 tons in April, 1863. The diminution here indicated in the consumption of English coal in Prussia is mainly attributable to the extended use of Westphalian, as has been previously explained.

COAL-CUTTING BY MACHINERY.—As an evidence of the increasing desire to apply machinery for the hewing of coal, owing to the many difficulties met with in obtaining the labour of workmen in the colliery districts at anything like a reasonable price, so far as regards the home mines, and owing to the almost impossibility of obtaining skilled colliery labour of any kind abroad, it may be mentioned that the manager of the Labuan Coal Company's pits has sent home for, and been supplied with, the necessary particulars relative to the coal-cutting machines recently alluded to in the *Mining Journal*, with a view to introduce machine hewing as a substitute for the cheap labour obtainable in the island.

NEW DOUBLE-ACTING VENTILATOR.—Amongst the numerous interesting models of new inventions exhibited at the President's *conversazioné* at the Institute of Civil Engineers, on Tuesday evening, was a new description of ventilator, patented by Mr. Montague Wigzell, of Topsham, Devon, which seems to solve the problem of how to introduce fresh air into close and crowded compartments of all kinds, and at the same time cause a free exit of foul air, without creating a prejudicial draft. There cannot be a doubt that the fatigue of travelling, as well as the injury to health, both by land and sea would be greatly decreased by the solution of this problem, and it is stated that Mr. Wigzell's ventilators have been found fully to answer the purpose. The apparatus is very simple, and is made double-acting by having two projecting openings, through which the amount of air admitted or let out can be regulated to a nicety by a simple handle. The onward progress of the railway or other carriage, or vessel, causes a free supply of fresh air by the front aperture or tube, while, as a matter of course, the foul air rushes out by the rear tube. By this means the air is kept pure, even in a smoking saloon, without perceptible draught. The invention seems of great importance for the ventilation of engine-rooms, fruit ships, saloons, deck-houses, &c. The same principle is applied to buildings by means of an apparatus resembling a cowl, but turning the aperture towards the wind instead of from it. It is said to have received the favourable opinion of many leading railway engineers, shipowners, carriage builders, and to be rapidly coming into use. The cost is trifling.

IMPROVED STEAM-VALVE.—Messrs. Scott and Co., of the Atlas Iron-works, San Francisco, are at present constructing an improved and very efficient steam-valve—a rotating valve, which has advantages over both slide and spring valves. It is mentioned that the wire-drawing of the former, and the percussion always attendant upon the latter, is completely obviated by the improvement. By the use of this valve steam may be worked expansively, without any additional fixtures, the end being accomplished by a slight variation in the valve itself. It appears that the steam can be expanded to a point below the pressure of the atmosphere before the stroke is completed.

AN ANCIENT BUCKET-ENGINE.—M. Deligny, now engaged in working the copper mines of San Domingos, in the province of Alemtejo, Portugal, has just sent a bucket-wheel, dating from the Roman period, to the Conservatoire des Arts et Métiors, and a paper on the subject to the Academy of Sciences. The above-mentioned mines, where this wheel was found, were worked in the earliest ages by the first nations that peopled the Iberian Peninsula. The chief mines in Portugal were Setubal and Troya; in Spain, the mountains of Tharsis and Zalamen, or Solomon, whither Solomon and Hiram sent their fleets to procure the copper required for the decoration of the Temple. The great importance of these mines is shown by the masses of scoriæ still visible around, and which are estimated at 20,000,000 of tons, accumulated in the course of several ages; the copper extracted thence is calculated at 800,000 tons. These scoriæ also reveal two different system of treatment of the ore, pertaining one to the Phœnician, the other to the Roman period, there having been an interruption between the two, caused by the wars between Carthage and Rome, and the conquest of the country by the latter. It would appear that the Romans resumed the working of these mines under Cæsar, coins bearing his effigy and that of Augustus having been found in them; the working was not discontinued until the invasion of the barbarians under Honorius. An inscription perserved in the Mining School at Madrid shows that under Nerva the working of the mines of Tharsis Batica was regularly organised. The Romans worked them very systematically; the waters were drained off through galleries, which in many cases attained a considerable length, as much sometimes as 1400 metres. The ore was extracted through shafts at distances of from 26 to 40 metres. When these shafts were very deep, an additional shaft for ventilation was sunk close to the main ones; they sometimes were 80 metres in depth. But as the hardness of the rock sometimes prevented the miners from continuing their galleries below the level of the waters, these would accumulate in certain places, and then a bucket-engine was used to pump them out. The one sent to the Conservatoire, and discovered at San Domingos, is 6·66 metres in diameter. The spokes are of fir, the axle and its supports of oak. The buckets, 25 in number, are 16 centimetres in width, by 50 in length and 13 in height. All the pieces of the wheel are joined without any metallic fittings. The wheel was set in motion by men in the manner a treadmill is worked. The quantity of water thrown out per second was 1·84 hectolitres. This wheel dates from the year 412 of our era, and has, therefore, existed 1452 years. It is certainly the oldest relic of its kind.

HELSTON TIN MINING DISTRICT.

The great tin district of Wheal Vor is again becoming one of the most noted mining fields of Cornwall, and seems likely, ere long, to take once more precedence of every other part of the county in the production of its particular metal. Information recently conveyed in the Journal informed the public that the old Wheal Vor was for a long series of years the great tin mine of the world, compared with which all other tin mines were mere pigmies standing in the shadow of a giant. It has also been shown how the operations in this famous old mine were limited to following the great shoot of tin, which had been first met with cropping up close to the surface, to the great depth of more than 300 fms.; that it then declined in value, and this, combined with the engineering difficulties which at that time lay in the way of draining and working mines to sink a great depth, led to the abandonment of the concern. Its greatest returns were made whilst the price of tin was little more than half its present value, and yet its produce is valued by millions sterling. Its profits were great, but they would have been much greater but for its proprietors having been involved during the period of the mine's greatest prosperity in a Chancery suit. This not only swept away an immense proportion of the profits (for Chancery suits in those days were as bad as the Prussians in Denmark, or the ravages of the hordes of Attila), but also was, probably, the principal cause of the suicidal way in which the mine was worked. Exploring operations were neglected, and the great object was to rip out as much tin with as little delay as possible, having no view to the conservation of the property which was pouring so much riches into their pockets. At length they completed the practical illustration of the fable, and "killed the goose which had been laying for them the golden eggs." The mine expired under the severe treatment of depletion to which it had been subjected.

The way in which the splendid district of which old Wheal Vor may be looked upon merely as the pioneer was entirely neglected, whilst that mine was yielding such magnificent results, can be compared only to the folly which a discoverer of a new country would be guilty of if, on landing on some fertile continent, he were to settle down in the first rich nook he happened to stumble on, and to leave all surrounding regions unexplored and unappropriated. It would be as though Columbus and his Spaniards, when they had discovered the West Indies, had remained in the first island which they reached, and sought neither for other islands nor for the great continent which lay in close proximity to them. Without the slightest exaggeration, this was precisely the conduct of the former proprietors of Wheal Vor. They possessed the richest tin mine in the world; they saw around them an extensive district, possessing precisely the same geological and mineral features as the part of it from which they were deriving so much wealth, and the whole was at that time at their command; they might take as much as they pleased. The owners of the adjoining land, seeing the riches pouring into the laps of the lords of Wheal Vor, were only too anxious to have their properties also developed, and to reap the same advantages, but the whole was neglected, yet everything pointed to the great abundance of the valuable metal which lay around.

The workings of the ancient miner, made at a time when civilisation and the mechanical arts were in their infancy, showed plainly where tin had been found close to the surface, and their traces seemed left as landmarks for future generations, guiding them to the spots where the rich ore most abounded, affording the same indications, in fact, as those which had led to the discovery of their own mine. Nature, too, gave her evidence in the strongest and clearest manner, pointing to the same conclusion. Never was there a district the various parts of which so exactly and completely correspond. There is a unity and identity of feature in this mining field possessed by no other in Cornwall. The whole is one immense body of clay-slate, rising between two parallel ranges of granite hills, about two miles apart—Tregoning and Godolphin on the west, and the Crowan and Wendron hills on the east. This clay-slate formation, resting in a granite valley, is perfectly homogeneous, and is traversed by numerous lodes running from one chain of hills to the other, and by numerous cross-courses and elvan courses; and it is between the parallel cross-courses, and in connection with the elvan courses, that the largest masses of tin have been, and are still likely to be, met with.

In looking over the undeveloped portions of this mining field, we find the eastern part occupied by East Wheal Vor, and that this mine embraces considerably more than half the ground traversed by the lodes of Great Wheal Vor, lying between the two ranges of granite. In East Wheal Vor the clay-slate formation rests on the slope of the granite hills, precisely as it does in Great Wheal Vor; the same lodes pass from one mine to the other, have been similarly found to produce rich bunches of tin close to the surface, and pass between parallel cross-courses of the same character as those which traverse the old mine. There are also elvan courses, and junctions of lodes and branches in depth, corresponding with the point of greatest success, in the old Wheal Vor. There seems, therefore, scarcely the possibility of failure. Mines, however, possessing every natural element of success, as this does, sometimes break down, and become failures, owing to the inadequate means which are provided for developing them; but in East Wheal Vor this danger has been effectually obviated, for in

addition to starting with a complete plant, of the value of 8000*l.* or 9000*l.*, there is a paid-up capital of 6000*l.* This removes the risk of future calls, and affords an instance of the sound commercial principles which are brought to bear on mining in the present day, the application of which to such a mine as this almost renders the absence of success an impossibility. Rich discoveries are already being made on Wheal Metal lode, within 6 fms. from surface, corresponding in every particular with the rich formations of tin met with formerly in Wheal Vor on the same lode, and which have led to the wonderfully valuable masses of ore which are now being extracted from deeper points, which are making this mine again the first tin mine of the day.

The Wheal Metal part of Great Wheal Vor was worked in but the most limited manner by the Old Wheal Vor Company, and affords at present a very striking example of what may be expected from a vigorous development of the parts of this mining field which were formerly neglected. It has now become the main stay of the Great Wheal Vor, reproducing the former wealth of the old mine, and proving that the former proprietors of Wheal Vor have left one of the greatest mining prizes of the present day for their successors. The value of the lode is frequently 200*l.*, 300*l.*, 400*l.*, and even 500*l.* per fathom, and the returns, which have already reached 50 tons of tin ore per month, can, from present appearances, be gradually increased, so as to rival the sales formerly made from the old mine, amounting to 200 tons per month.

It is worth remarking that in this district, in every instance where a lode has produced rich bunches of tin at the surface, it has on being pursued to greater depths been found to contain a large mass of the ore, from which great profits have been derived. The bunch of tin which is being explored in East Wheal Vor on the Wheal Metal lode, at the present moment is yielding tin stone, two-thirds of which is pure black tin; and this fact, answering so exactly as it does to the results of past explorations on the same lode in Wheal Vor, affords the best assurance that at deeper points it will yield large masses of tin, and give great profits

Sithney Wheal Metal, and North Wheal Metal, also afford the best chances of success, being marked by the same features, and traversed by the same lodes; and although of limited extent as compared with Great Wheal Vor and East Wheal Vor, are admirably situated. In going west from Great Wheal Vor the Metal lodes diverge, one part going into West Wheal Vor and the other into West Wheal Metal.

The southern portion of the district is occupied by Great Wheal Fortune, which has yielded large returns, and given considerable profits, both in the past and present workings. East of Great Wheal Fortune, and embracing the lodes of that mine, is Sithney Carnmeal, forming the south-eastern portion of the district. Good discoveries are now being made in this mine.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JUNE 2.—We have little new to report this week; the labour market in these two counties has now resumed its wonted quiet, at least so far as the Coal and Iron Trades are concerned; the late disturbances respecting the rate of wages, &c., have quite subsided, and the bad feeling caused by the dispute is also rapidly passing away. Everywhere the coal and ironworks are being carried forward quietly, and, on the whole, successfully, thus conferring benefits both on the employers and employed, and as we have often remarked lately, the iron making and iron shipbuilding establishments of the district are being rapidly extended. This is, perhaps, most conspicuous at Jarrow, where the engine and ironworks, &c., are assuming gigantic proportions: the population of this thriving place is now said to be 12,000, and is, of course, continuously increasing. An extensive new borough is now founded on the Tyne at this place, and will continue rapidly to increase in importance. The new companies started in the locality on the limited liability principle have been well received, and several others are talked of. It is also understood that one of the largest ironworks and foundries in the North of England, situated in Gateshead, is shortly to be merged in a company of this kind, the present principal acting partner wishing to retire from that post. The present owners will, however, it is understood, take shares in the new company, and become directors, so that their advice and assistance will be given in the business. It is an old-established and very extensive concern, and having been very prosperous and profitable, there can be no doubt that if shares are offered to the public they will be freely taken.

A meeting of the members of the North of England Mining Institute is to be held in Newcastle on Saturday, the papers to be read and discussed being of the most interesting kind. A paper is to be read by Messrs. Daglish and Forster "On Magnesian Limestone;" and the following papers will be open for discussion:—1. On the Anthracite Coal of America.—2. On the Wash or Drift through the Coal Measures of Durham.—3. On the probable Extension of the Coal Measures under the New Red Sandstone of Cumberland.—4. On the Manufacture of Iron in connection with the Northumberland and Durham Coal Field.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JUNE 2.—The Iron Trade continues dull, both in North and South Staffordshire. The demand for manufactured iron is very limited, buyers hold back, and for America, with the uncertainty which attends the tariff question, scarcely anything is doing. Yesterday a meeting was held at Wolverhampton of coal and ironmasters, when it was decided to reduce the wages of thin coal miners from 3s. 3d. to 3s. per day, and of workmen at blast-furnaces 10 per cent. It was previously stated that the men about Bradley, who succeeded in obtaining 3s. 6d. per day, or 3d. more than the rest of the thin coal miners, during the short active demand, were reduced to 3s. 3d. They at first struck, but some went in last week at the lower rate, and the rest were prepared to follow, but this new reduction, which will come into operation in a fortnight from next Saturday, is a more serious, because it is a more general measure. The reason for it will at once occur to the readers of this letter. For the last two months the pig-iron trade has been steadily going down. The great make in other districts keeps down prices, and it is now impossible to sell in any quantities at even from 7s. 6d. to 10s. per ton below the prices of quarter-day. The result is, that with the present rate of wages the manufacture of pig-iron is unremunerative. Already 26 blast-furnaces have been blown out in South Staffordshire, and the proprietors are ready to put out more, unless this reduction be acceded to. The diminished make of iron leads to a proportionate reduction in the demand for coal, whilst the domestic consumption is, on account of the season of the year, at a very low point. It is a very important question whether the men will or will not accede to this reduction of their wages. That the selling price of pig-iron has fallen to the full proportionate extent of the decrease sought to be made in wages is beyond question, and it also appears clear that the men are at the present moment in excess of work. The miners and blast-furnace workmen will do well to weigh the whole question dispassionately, and by deputations discuss it calmly with their employers during the fortnight which intervenes between the notice and the reduced scale coming into operation.

Yesterday the Biddulph Valley branch of the North Staffordshire Railway was opened for passenger traffic. There was a special train, containing the Chairman, Vice-Chairman, and several directors of the company, with a number of leading shareholders and others interested in the undertaking. The line extends from Stoke to Congleton, and is 12¾ miles long. It is at present single, but is constructed so as to admit of another pair of rails being laid down. The valley is at present picturesque, but collieries, with their sidings, give warning of the activity which will soon mar the beauties of Nature by the operations of man. Mr. Robert Heath, a wealthy and most energetic, able, and liberal-minded man, has for nearly four years, during which the line has been worked for mineral traffic, had blast-furnaces and rolling-mills at work near Biddulph, and a leading feature in yesterday's proceedings was a visit to a new works he is erecting at Norton, near the Ford Green station of the new line. He is putting up 32 puddling and 7 mill furnaces, which are built round, and give heat to eleven upright cylindrical boilers. Two large steam-engines, each of 75-horse power, with fly-wheels of 26 ft. in diameter, and weighing with the shafts 56 tons, will turn the rolls, whilst smaller engines work, the one a plate shears, and the other a pump for supplying the boilers. Two steam hammers are being made by the Lilleshall Company for the works, which are intended for rolling boiler and ship plates. A shaft 47 yards from the ground conveys away the smoke of the various furnaces, &c. The works are to be in operation by the end of the present month. The foundations of two blast-furnaces have likewise been laid. Altogether, the works are constructed on a very superior model, and it seems pretty clear that Mr. Heath's example will find many imitators, and that in a few years the Biddulph Valley will resound from end to end with the clang of the winding chain, the roar of the blast-furnace, and bumps of the steam-hammer.

The Cannock and Rugeley Colliery Company (Limited), which consists of some 20 proprietors of wealth and influence, have taken about 2000 acres of Cannock Chase, for the purpose of extracting the coal and ironstone. They have a capital of 50,000*l.*, and have commenced operations in a vigorous manner. The Earl of Uxbridge, heir to the Anglesey estate, is the chairman, and Mr. J. T. Birch, of Armitage-park, the vice-chairman of the company, for which, by the way, the capital has been subscribed without advertising. It is satisfactory to hear that the company have determined to build a large number of very good cottages for their workmen, none of which are to contain less than three bedrooms.

The Staffordshire Potteries Waterworks Company, at their annual meeting on Tuesday, were able to declare a dividend on the ordinary share capital at the rate of 6 per cent. per annum, and the future prospects of the company appear to be good.

The Dr. Percy controversy is abating in bitterness. In the Birmingham *Daily Post* of Monday Dr. Percy adduced, in self-justification of his statements, passages from the reports of Mr. Dickinson, Mr. Wynne, and Mr. Brough, and extracts from evidence by Mr. Nicholas Wood, &c. These are certainly far less sweeping than the Doctor's own observations, and certainly never excited so much anger. In to-day's *Post* Mr. H. Johnson responds in by far the best letter he has yet written, and one or two passages are worthy of extract. Mr. Johnson is endeavouring to vindicate the South Staffordshire colliery managers from the charge of great waste of human life by their operations, and says—"I give the following extracts from the different reports of the Government Inspectors of Great Britain for the year 1862:—

	Northumberland, Cumberland, and Durham.		S. Staffordshire, and Worcestershire.		South Wales.	
	Accdts.	Deaths.	Accidents.	Deaths.	Accdts.	Deaths.
Accidents in collieries from all sources ..	150	385	111	114	75	135
No. of men employed in each district, as per Prof. Hunt's Statistics for 1862	 54,036		36,316		31,158	

Accepting this statement, then, as an official and correct one, we have South Staffordshire standing in the following favourable contrast with the North of England and South Wales:—

	ACCIDENTS AND DEATHS.		
South Staffordshire and Worcestershire	1	to every 290	men employed.
South Wales	1	„ 145	„
North of England—including the Hartley accident, at which 204 lives were lost	1	„ 102	„
North of England—exclusive of the Hartley accident	1	„ 165	„

By this it is shown that South Staffordshire had nearly three times less accidents man for man, than the North of England, and only just one-half the number of accidents, man for man, as South Wales; and this is one of the principal complaints by Dr. Percy, as constituting the 'colliery rottenness of South Staffordshire,' and 'its management as being a disgrace to the age.'" It was the fashion, by comparing the deaths with the supposed amount of coal raised, to make the mortality in South Staffordshire appear very large; but the estimates were always very fallacious, and the number of men employed is far easier of attainment.

As to the long wall system being the best means of getting thick coal, which had been recommended strongly by Mr. Brough the late, and Mr. Baker the present, Inspector of Mines for South Staffordshire, Mr. Johnson says—"One argument that may very consistently be used against 'long wall,' is that not one of those who practise it endeavour to bring its advantages prominently before the coalowners generally. If they are asked as to its success, as a whole, they quietly answer, 'Don't ask me; I only wish the necessity for 'long wall' didn't exist in my case.' 'Long wall' may produce a greater quantity per acre, but it will be at the expense of an extra cost in getting per ton, and a reduced average selling price per ton, as compared with the produce of 'pillar and stall;' and the loss on the two last items may very soon outweigh the advantages of the first."

With regard to the butty system, Mr. Johnson acknowledges that it is open to abuses, but puts in this plea in mitigation:—"Butties are generally made out of good, intelligent, thrifty workmen, who save a few pounds out of their earnings, and then join some one else equally situated. These two sums are then invested in the most perishable description of stock—live horses, gear, pit tools, timber skips, coals underground, &c., and all these are at the bottom of a pit, 100 or it may be 300 yards deep, all liable without a moment's notice to be sacrificed either by inundation, 'fire stink,' or explosion of gas, and in case of this property being thus sacrificed they have to bear the total loss themselves. In some cases as much as 1000*l.* is invested by a butty in this way in a thick coal pit; and under the circumstances, and taking the risk of his daily personal attention to it, I cannot see in common fairness why he should not get something out of it." However, most people who are conversant with the district will acknowledge that the butty system, whether necessary or not, is attended by many evils, and interposes very serious obstacles to the improving of the collier and of colliery operations.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

JUNE 2.—The reports received from all the districts in the Iron Trade in these counties are in favour of the continuance of a good trade, notwithstanding the reports which may have been received to the contrary. The orders for rails, and railway ironwork generally, are exceedingly good, and there is a fair prospect of an active trade for some time to come. The orders on hand for steel and manufactured iron generally are such as will keep most of the houses employed. There is a department, however, in the steel trade which has been of late but little represented; but we have now information which will be of eminent service as regards the alteration of a foreign demand; there is, however, good enquiry for all descriptions of home manufactures. The facility with which all public companies obtain their Acts for an extension of the railway accommodation is such that we have no fear of the want of demand for railway iron for many months to come. We have had orders during the week for a large consignment of railway springs and other ironwork belonging to railways, which is undertaken to be done on the shortest notice; but if the bulk of the matter be attended to at once, no delays will be experienced in the contracts already entered into.

The strikes in the coal and iron trades still continue, and there is not the slightest possibility of an early settlement. The South Yorkshire men are exasperated at the statement which has been published by the masters; and the difference is all the stronger by the statement which has been put forth by the working colliers, which disproves much which has been published by the masters, showed that their earnings have not been as much per day as has been represented. In the present aspect of affairs the masters do not show to advantage.

There has been much business done during the week in the Stock and Share Market, the rates for gas and bank shares having advanced, but the water and railway share stock is difficult to dispose of.

The applications for Letters Patent include—Mr. James Eastwood, of Litchurch, for machinery for puddling iron and steel iron; Joseph Whitley, of Leeds, and David Farrar Bower, of Hunslet, for the manufacture of wheel-tyres; Mr. John William Lees, of Waterhead Mill, for a method of cleaning and preventing the formation of deposits upon the heating apparatus employed in boilers for generating steam; Mr. R. L. Hattersley, of Keighley, and James Hill, of Cross Hills, for looms for weaving.

REPORT FROM MONMOUTH AND SOUTH WALES.

JUNE 2.—The staple trades of the district are in a moderately satisfactory state, and employment is plentiful throughout South Wales and Monmouthshire. The accounts from the ironworks are not quite so cheering as was the case a few weeks ago, and the market is flatter. Quotations show a tendency in favour of buyers, and although first-class makers maintain list rates, yet there is a probability that prices will decline a little. The adoption of the new tariff in America, and other matters, tend to this result, and, in fact, the Staffordshire makers have already been obliged to submit to a reduction. The demand for coal continues good, and both steam and house merchants are well supplied with orders. Negociations are pending with the view of disposing of Messrs. Powell and Sons' steam coal collieries to Mr. George Eliot, an extensive colliery proprietor in the North of England, and a partner in the firm of Glass, Eliot, and Co. The house coal collieries are not to be included in the sale, and the firm intend to still continue this branch of their business. Increased dulness is evinced in the Tin-plate trade, owing to the few orders given out on American account.

Mr. Thomas Errington, Wales, has now been gazetted as one of Her Majesty's Inspector of Mines.

The repairs to the West Dock, Cardiff, are being rapidly proceeded with, and it has been ascertained that the damage is not quite so great as at first expected. The exertions that are being made to accommodate shippers at the East Bute Dock, which is kept working day and night, the Penarth Tidal Harbour, and the Glamorganshire Canal, enable the trade to be carried on with but little interruption.

Respecting the Welsh and North Country Coal question, a correspondent writes—Having read over the account of the interview of the Aberdare Steam Coalowners, Mr. Bruce, M.P. for Merthyr, and Mr. H. H. Vivian, M.P. for the county, with the Lords of the Admiralty, upon the question of the superiority of the Welsh over North Country coals, and therein find that both members were earnest in their plaudits of the Aberdare coals only over every other coals in the country. Now, Sir, of course, to Mr. Bruce this was quite natural, as he not only advocated his own interest, but that also of his constituents. Not so with Mr. Vivian, who followed Mr. Bruce, and left the remaining portion of the steam coal field of Glamorgan unrepresented, and as of no importance. I find Mr. Vivian stating that the result of the trial on board the *Confiance* with Welsh steam coal, 9·3 of water evaporated per lb. of coal, and that the coal was Resolven coal, and not of the very highest class of steam coal, but still a good Welsh steam coal, and shown to be the most economical. In comparing these results with the list published in your valuable Journal of the 17th July, 1858, I find these results exceed the average results of all the trials of steam coal at Portsmouth Dock Yard. In the same list I also find that the Birchgrove, Craigola, Gellia Cadoxton, Graigola, and others occupying as high a position as any of the Aberdare steam coals. It is also observed by Mr. Vivian, in referring to the standard trial (No. 1), that the quantity of soot produced by different coals was a test, and there refers to a Welsh coal, which he states is not such a high class coal as the Aberdare coal, and the quantity of soot produced by this was only 62 lbs., and that of Aberdare 69 lbs., consequently I am at a loss to known, on Mr. Vivian's own figures, how other Welsh steam coals are not so high a class as the Aberdare coals. It is, nevertheless true that a greater quantity of coals are at present wrought in the Aberdare district than in any other part of the basin; but, at the same time, it is only just to the other coalowners that their representative in Parliament should pay a little attention to his constituents in other parts of the county, and not endeavour to exclude other coals having a fair trial which are shipped at other ports as well as those of Cardiff. I am thankful for the very able remarks, and the disinterestedness shown by the Lords of the Admiralty, which will enable us to have trials, as well as results of the trials, of all the Welsh steam coal; and I trust should Mr. Lindsay, at any future period, advocate the North Country coal in the House, Lord C. Paget will be able to see the Welsh gentlemen in their places.

At the Aberdare Police Court, on Tuesday, before Mr. J. C. Fowler, stipendiary magistrate, Charles Thomas was summoned for an infraction of the 49th rule of the old Duffryn Colliery, by smoking in the works. Mr. James appeared in support of the summons. Mr. Wilkinson, the manager of the colliery, said that on the 10th of last month he was going round the workings alone, when he came to a place where defendant and some others were working. They were not all at work when he came upon them, and defendant was sitting down smoking. The proprietors felt compelled to press the charge against him for the safety of the other men. Some years ago a blower escaped from this part of the workings, and filled the entire colliery with gas, to the imminent danger of everybody down at the time, and had it not been for the prompt measures which were then adopted an explosion would have been the result. Mr. Fowler said he was sorry to have to pass a sentence of imprisonment upon such a man as the defendant, but the frequent occurrence of these cases showed that the only method of putting down the dangerous habit of smoking in collieries was by heavy imprisonment. Defendant would be committed for one month, but, as he had hitherto borne such a good character, hard labour would not be added to the sentence.

CARDIFF.—The export of iron to America is falling off, owing to the adoption of the new tariff, and many shippers have been disappointed in not being able to send cargoes before the high protecting duties were imposed. There is a moderate enquiry from the Continent, and the home sale is rather dull. The steam coal merchants are well supplied with orders, and the shipments to French ports, the West Indies, &c., continue large. The average quotation for best steam is about 11s. per ton, free on board. House coal remains without any material alteration to record, and the collieries are on full time.

SWANSEA.—During the past week the shipping trade has been brisk, and the local railway traffic returns bear favourable comparison with corresponding periods. The Dunvant Valley line is being rapidly pushed forward, the contractors evincing no disposition to lose time in its completion. On Tuesday next, Mr. Robert Morgan, Government Inspector, will attend at the Guildhall, to open an enquiry, with the view of obtaining a provisional order extending the borrowing powers of the Local Board of Health. Mr. Rawlinson, the engineer, under whose supervision the new water-works have been constructed, was here last week, and strongly recommended the board to enlarge the water-works, so as to supply the trade with water, as well as for domestic purposes, as at present. I should be almost afraid to quote the enormous sum of money which has already been laid out in the new works, and the suggestion of Mr. Rawlinson creates a rather uneasy feeling in the minds of rate-payers, who fear further burdens. The works altogether have come to be regarded as a stupendous job, an idea which recent events only tend to consolidate, and any extension will be looked upon with a mistrustful eye. As it is, considerable dissatisfaction exists, which recent official explanations have not succeeded in allaying. On Wednesday last the marriage was celebrated of the only daughter of one of our wealthiest and most influential merchants and shipowners. Amy, daughter of Mr. John Crow Richardson, was united to Mr. G. P. Serocold, of Gloucester. The event was celebrated with considerable *eclat*, befitting the high commercial character and position of the contracting parties, the father of the bride being universally and deservedly respected, as, indeed, are the whole of the family, of which he is the senior member.

The arrivals at Swansea include—Teazer, from Antwerp, with 150 tons of pig-iron, to order; Hermod, from Kragero, with 550 tons of nickel ore, for Messrs. H. H. Vivian and Sons; Vigo, from Antwerp, with 160 tons of pig-iron, to order; Actif, from St. Malo, with 96 tons of zinc ore in bulk, for Mr. Rowlands; Bonne Amelie, from Bilbao, with 165 tons of iron ore, to order.

FOREIGN MINING AND METALLURGY.

Complaints are made as to great heaviness prevailing in the Belgian coal trade, prices being feeble, and orders inconsiderable. Thus the Paris market, which has usually forwarded a precious contingent of orders to Belgium, is this year stated to have sent scarcely any. This fact is all the more unfortunate, since it threatens to repeat itself in subsequent years. The outlet of Belgian coal in the direction of France is considered to be seriously compromised, the rapid development which French coal mining industry has taken in the Pas-de-Calais, as well as elsewhere, occasioning grave difficulties in the way of importations of Belgian coal into France. The proprietors of Belgian coal-workings must, then, seriously remember that to preserve the extraction of Belgian coal on its present extensive scale, they must seek for new outlets as a compensation for those which are evidently diminishing. For some years the fabrication of agglomerates of coal has acquired great importance, and an improvement is announced, which will be shortly introduced into this department of industry. Thus M. Bouriez, director of the establishment of MM. Camille de Haynin, Desse, and Co., has just deposited a patent for a new system of agglomerating ordinary coal, which would present several advantages, securing, *inter alia*, great economy of labour. An apparatus will be soon constructed for a production of 300 tons per day, and will be put in activity in October. At Charleroi, it is considered that the revival in metallurgy has reached a point beyond which it will not be carried for the present—at any rate as regards prices, for if a new outlet has been secured in England, on the other hand the exports to France leave much to be desired. It appears from the nature of the orders which continue to come to hand from abroad that rails constitute the principal basis of the future of metallurgy. New affairs are in course of negociation; at the same time, there is reason to fear that the dearness of money may temporarily paralyse the spirit of enterprise to which the constitution of railway companies may be attributed. Prices have not varied. With regard to metallurgical intelligence, mention is made of the intended creation in the Central district of a great rolling-mill for the production of plates, which would be fitted up so as to produce all the articles of the largest dimensions required for the sheathing of ships, and the thick plates utilised now in fortifications. It is stated also that some capitalists and industrials of the Charleroi basin are in negociation for the purchase of the Pommereul blast-furnaces, which have remained inactive for several years. Other Belgian industrials are considering the desirability of establishing siderurgical works in the Moselle, where metallurgy appears to find itself placed in an excellent position; the name of the engineer who is to be charged with the direction of these establishments is even mentioned. The company known as Messrs. Thevenet and Co. is about to modify its social constitution, and also to extend its works.

There is no important change to notice in the situation of the St. Dizier market, or in the tone of prices, although, perhaps, affairs are rather more active. Charcoal-made refined pig has a nominal quotation of 4*l.* 12s. per ton, and 4*l.* per ton, half coke half charcoal. As regards iron, previous prices may be again reported, but there is rather a better demand. Rolled irons are quoted at 9*l.* to 9*l.* 4s. (with a scale of 4s. to 8s. per class); hammered irons, 10*l.* 4s. to 10*l.* 10s. 6d.; and machine, No. 20, 9*l.* 8s. to 9*l.* 12s. per ton. Orders come to hand abundantly in the Moselle group, and an approaching rise of from 4s. to 8s. per ton in first-class merchants' irons is spoken of. Puddled plates are quoted at 11*l.* to 12*l.* per ton; and hard-iron plates, 18*l.* 16s. to 19*l.* 12s. per ton at the works. Forged steels are quoted 26*l.*, 27*l.* 4s., 28*l.* 8s., and 33*l.* 4s. per ton, to which must be added 2*l.* for each refining; the classification of natural steels is much more simple than that of irons of commerce. We speak here of the steels of the house of Dietrich, which are also of as good quality as the steels of Germany. The advices received from the forges of the North of France are not very satisfactory; some works are now seeking for orders, their price being 8*l.* 4s. to 8*l.* 8s. per ton, at stations within their more or less immediate neighbourhood, and 8*l.* 8s. to 8*l.* 12s. per ton free at Paris. The Administration of Customs has often been invited to introduce into its monthly tables illustrative of the commerce of France the quantities of iron, &c., imported temporarily; and it is understood that the application is to be attended to in future. The object is, of course, to show the extent of purely speculative commerce. A bill was recently presented to the Corps Législatif, intended to abrogate the arrangements of a law enacted in 1810, which required administrative sanction for the establishment of blast-furnaces, forges, and ironworks, and at the same time those articles in the law which establish to the profit of works certain rights over the mineral bearings of the neighbourhood. Metallurgical industry has of late not attached great importance to the first part of the old law, which, by the force of circumstances, has practically fallen into desuetude; but the second part, referring to the working of mines, has occasioned, on the contrary, lively debates, and attention has been generally directed to the consequences which it may exert on the metallurgical situation. At its last quarterly meeting the committee of French forgemasters was specially occupied with the questions raised, and it presented to the commission of the Corps Législatif, charged with the examination of the new bill introduced, serious objections against the adoption of the proposal made. The observations of the committee of forgemasters appear to have not been without effect—at any rate, the session of the Corps Législatif has come to a close, and the reform measure introduced does not appear to have become law, so that the law of 1810 appears to have secured a further term of existence. "Threatened men," they say, "live long." In the preceding paragraph, reference is made to an intention entertained by some Belgian industrials to commence operations in the Moselle district; and, perhaps, it may be interesting to detail what the *Ancre* (a St. Dizier journal), has to say on the subject. "They speak more than ever," says the *Ancre*, "of a combination of English and Belgian capitalists and industrials for the working of two rolling-mills, one of which is in a state of inactivity. A great fusion of collieries in the Moselle district, at the head of which an English company proposes to place itself, is also spoken of, and it is added that the Crédit Mobilier would take part in the affair; at present, the Belgian affair appears the most serious. Every one knows the advantageous position of our metallurgical basin and its future, but it would be curious to see foreign industrials come and work up our own wealth." At the Besançon fair, a majority of the forge masters present pronounced for the maintenance of the *statu quo*, and the price of pig remains accordingly at 7*l.* 12s. per ton for the first mark. As at St. Dizier, there is no change in quotations, but a greater activity is observable in the market, especially for iron, pig being neglected. On the occasion of a petition being presented by a number of Rouen industrials, soliciting the purchase of the concession of the French Sambre and the Junction Canal, the Senate has adopted the order of the day, following again the course pursued in the case of a similar petition addressed to it by the Pas-de-Calais committee of coal owners. At the same time, it was officially intimated that the matters referred to in both petitions would not escape the attention of the Government.

We have some information at hand with reference to zinc mining in Silesia, but before detailing it, we may observe that the Silesian Zinc Mining Company has just held its annual general meeting. It was decided that a dividend of 4½ per cent. should be distributed on the preference shares, part in money and part in more preference shares, taken at 90 per cent. of their nominal value. As to the ordinary shares, they will touch nothing in respect to the past exercise. Now for our general data as to the present state of the zinc trade, and the extraction of Silesian minerals. The transactions in rough Silesian zinc during the first three months of 1864 (including some lots to be delivered in April) indicated the following results:—93,000 centners first hand, and 18,000 centners second hand, or 111,000 centners for the three months (a centner is about an English cwt.) This total was made up as follows:—Jan., 38,000 centners; Feb., 54,500 centners; March, 18,500 centners. Prices rose progressively during the three months. The stock at the commencement of the year was only 15,000 to 20,000 centners, so that the quantities mentioned are derived from the production of 1864, and there is scarcely anything disposable at present. England has now a stock of 280,000 centners, or 14,000 tons, a total which appears high, but it must be remembered that in preceding years the stock at Hamburg was 60,000 to 100,000 centners, and at Breslau and at Prussian works 200,000

to 300,000 centners, while now the stock has been almost wholly absorbed. The zinc production of Europe is now estimated at 1,700,000 centners, and the consumption has for some years past been nearly equal to the production, so that the 280,000 centners disposeable at London would be scarcely equal to two months' consumption. It is remarkable that the production of zinc minerals, which up to 1861 had sensibly increased, has since become notably reduced. Thus the following table indicates the production of minerals and rough zinc in Silesia during the last 10 years:—

Year.	Minerals.		Rough zinc.
1854	3,159,445	Centners	553,613
1855	3,667,100	"	559,910
1856	3,899,818	"	561,911
1857	3,867,308	"	612,841
1858	4,148,993	"	746,812
1859	4,974,446	"	744,216
1860	5,271,232	"	807,000
1861	5,669,745	"	831,697
1862	5,594,795	"	821,095
1863	4,650,014	"	763,646

As regards the current year, there is reason to anticipate, from the results which have thus far transpired, a fresh reduction in the extraction of minerals.

With regard to the foreign metal markets, it appears that Paris prices have not varied for copper; some transactions, however, have taken place of rather a speculative character, and have been concluded on terms slightly below the rates previously quoted. At Havre there is nothing very new to notice, Chilian remaining at 92*l.* 10*s.* Copper maintains itself a little better at Hamburg; nevertheless, transactions remain quiet, and are limited to the requirements of consumption. Berlin has been quiet, and Cologne without change. At Rotterdam, Drontheim copper has been quoted at 62 fls., and American 60 fls. to 63 fls., according to quality. Although no notable change has taken place, a slight amelioration is noted, nevertheless, in the Dutch market for tin, Banca being dealt in in small lots, at Amsterdam and Rotterdam at 67 fls. At Paris little has been done in tin, and prices have been feeble, Banca making 118*l.*, brilliant Detroit 114*l.*, and English 109*l.* At Berlin and Cologne prices have been nominal, and at Hamburg tin has remained completely neglected, although previous prices have been maintained without change. The Brussels market for tin has been feebie, Banca being offered at 112*l.* 16*s.* per ton. Rough French lead has slightly risen at Paris, having made 23*l.* per ton; other descriptions without variation. At Marseilles, lead in saumons, first fusion, has made 26*l.* 8*s.* to 22*l.*; ditto second fusion, 20*l.* 8*s.* to 21*l.* 12*s.*; ditto argentiferous, 20*l.* 8*s.* to 21*l.* 12*s.*; rolled and in pipes, 22*l.* 16*s.* to 24*l.* per ton. At Rotterdam lead has been firm, Spanish having made 11¼ fls., and Stolberg and Eschweiler 12¼ fls. At Hamburg holders have endeavoured to raise the price of soft German lead, but the article does not enjoy for the present any very great demand. At Cologne there has been more demand, and the tone of the Berlin market indicates rather more firmness, the demand appearing to have revived. The state of the zinc market is very satisfactory; the revival which has appeared for some time in this article is attributed, more particularly, to the great demand which has prevailed for some time at Hamburg, as well as at Breslau, on both of which markets it has not been possible to satisfy the numerous orders received, except at rising prices, in consequence of the extreme reserve of holders. In consequence of the advices received from Germany, rough Silesian zinc has risen rapidly from 23*l.* 4*s.* to 23*l.* 16*s.*, and rolled is quoted at 26*l.* 6*s.* per ton. The good tone of the controlling markets has given, as may be supposed, much firmness to the article on the secondary "places" of Europe.

MANCHESTER GEOLOGICAL SOCIETY.—The monthly meeting of members was held in the Peter-street Museum on Tuesday, Mr. A. Knowles, the President, in the chair.—Mr. O. A. Ferris, of the Victoria Park School, presented "a raised map in plaster," of the Peak district, Derbyshire, modelled by the late Mr. Elias Hall, of Castleton.—Mr. J. Goodwin presented an unusually perfect specimen of the lepidodendron, associated with anthracosia shells, found in the Cannel Mine at Houghton.—Mr. J. Plant exhibited specimens of coal shales from Clayton and Bradford, containing remains of fish and crustacea; one of the remains, he believed beyond all doubt, to be a true crustacea. Mr. Plant also exhibited an impression of the leaf of a rare plant, annularia brevefolia, from the purple shales of Collyhurst.—Mr. Horsfall exhibited a very large heavy stone, which Mr. Jos. Dickinson said he believed to be siliceous aggregation, found in the Black Mine at Athton.—Mr. Plant said he considered it to be a quartzite glacier boulder of the coal period.—Mr. J. Goodwin read a paper on the Subsidence of the Surface consequent upon the Working of Coal Mines. He said that under any system of working coal the surface must necessarily be lowered; all that engineers could, therefore do, was to lessen the damage to property by changing the breakage line, for the mere act of subsidence would of itself produce little or no injury. Long experience had shown him that damage to the surface might be lessened by removing four-tenths of a seam, and leaving the remainder for the purpose of changing the direction of the breakage. In some mines it would not be necessary to leave more than half the coal; working, for instance, for twenty yards and leaving twenty yards standing. The paper was illustrated with diagrams, to show the angle of breakage, and how far it would extend on the surface from the point immediately above the point to which the coal had been worked. In the course of the discussion which followed, Mr. Greenwell said the different systems must be adopted to change the breakage line according to the manner of getting the coal, the system for pillar and stall might not suit for long wall work.—Mr. J. Dickinson said he once read a paper on this subject to the Society, and the observations he then made were confirmed by subsequent experience. He gave instances where the breakage line had been in the "rise," instead of, as ordinarily, in the "dip," and said that he had even seen subsidence where workings had been 600 yards deep. The subsidence caused by working a 4-ft. seam at a depth of 200 yards was about 3 ft.—The Chairman and one or two others expressed an opinion that a mine ought to be so worked that the whole area of the surface above it should sink at the same time.—A vote of thanks to the Chairman concluded the meeting.

THE MANCHESTER ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.—At the monthly meeting of this association, held at the offices, on Tuesday,—Mr. Hugh Mason, Vice-President, in the chair, Mr. L. E. Fletcher, chief engineer, reported the occurrence of six explosions during the past month, by which 11 persons have been killed, and 13 others injured. None of the boilers were under the inspection of this association. One explosion occurred to the boiler of a locomotive-engine, while standing at a short distance from a railway station. The cause of the explosion was attributed at the inquest, by three practical boiler-makers, to shortness of water, and consequent overheating of the plates. A personal examination of the exploded boiler led to a very different conclusion. The rents, instead of being in the fire-box, which would have been the case had the plates been overheated, were confined to the external shell; so that it is clear that the explosion was not due to a shortness of water. On further examination, it was found that the character of the water was somewhat corrosive, and the surfaces of some of the plates had been eaten into indentations by it; while close to the overlap, at a longitudinal seam of rivets, at the left of the cylindrical portion of the boiler, and in the ring of plates nearest to the smoke-box, a deep furrow was found to have been eaten, which ran longitudinally more than half way across the width of the plate. At this furrow, which was below the water line, the plate had rent, and there can be little question that this rent was the primary one from which the others developed, and to which the explosion had been due. A second explosion occurred to the boiler of a locomotive engine, while standing very near to the station. The consideration of the directions in which the fragments had flown, as well as an examination of the parts, left little room to question that the primary rent had occurred at the base of the steam dome, where the ring of angle-iron, with which it was attached to the shell, was found to be severed for a considerable distance through the line of rivet-holes. This explosion is considered, therefore, to have been due to the existence of the steam dome, and that had it not been for this the explosion would not have occurred. The danger of these steam domes has been frequently pointed out to the members of the association; and this explosion, which is by no means singular, affords an additional illustration of the importance of dispensing with them altogether, at all events in stationary boilers. The particulars of the remaining explosions are postponed until the next monthly report.

THE TURBINE WATER-WHEEL.—The readers of the *Mining Journal* are already well acquainted with the name of Mr. C. SCHIELE, of Manchester, in connection with the manufacture of turbines, and he has now introduced some improvements which render that very useful machine as near as may be perfect, and as they are made of all powers, from about ¼th to 1000-horse, they are capable of application to every variety of purpose. It is justly remarked that, perhaps, the best proof of the value of the turbine over the ordinary water-wheel is in the fact that in those countries where water-power is of most value, on account of the scarcity or high price of fuel rendering steam-power very expensive as a motive-power, the turbine has almost entirely superseded the use of the ordinary water-wheel. When it is compared with the ordinary wheel, the turbine is very small, and requires scarcely any foundation or other preparation, whilst its speed is so much higher that its power can be transmitted at once, thereby dispensing with expensive intermediate gearing, and giving at the same time an increase of effective power. A turbine can also, in many cases, be applied where a water-wheel could not, on account of limited space, or in high falls, where a series of common water-wheels would be required. Another important feature of the turbine is that its motion is much more constant and uniform than that of a common wheel, in consequence of the equal diffusion of the water over the whole of its circumference at the same instant; but in a common wheel there is always a great irregularity of speed and back lash. The turbine will also work under back water of any depth, and will only suffer so much diminution of power as is just proportional to the decrease of fall, so that on tidal rivers the advantage derivable from its use is very considerable. Prof. Beardmore has found, by careful experiment, that the best undershot wheel utilises but 33 per cent., and the best breast wheel but 52 per cent. of the power contained in the water, whilst the turbine utilises very nearly the whole. The mode in which the turbine works is very simple: the water is conducted through a tube to the spiral water-chamber which surrounds the drum: from this chamber it passes through the water-ports on to the centre of the outer side or periphery of the drum, in such a direction as to enter the curved buckets or wings of the wheel without any shock. It will thus be understood that the water passing down the supply tube cannot escape without first passing through the curved buckets, and that in making this passage a forward rotatory motion must be given to the drum, such motion being readily communicated by the usual gearing to any machinery which it may be desired to drive. The power is driven off by a steady pressure of the water while it is passing along the curved wings, and having exhausted all its power passes away. Messrs. Schiele and Co. have facilities for showing the action of their improved turbine in actual work at their offices, Clarence-buildings, Manchester; and it will be seen that the improvements which Mr. Schiele has introduced render it impossible for his turbines to become choked, an evil to which many other turbines are subject. In Manchester, where the water is supplied at high pressure, turbines down to only 4 inches diameter are successfully employed, and it is considered, of a larger size, the turbine would be one of the most efficient motors that could be employed in connection with mining.

THE NEW FUEL—OLATE OF COAL.

On Thursday a series of experiments were made at the smithy of Messrs. Clinton and Owen, of Whitefriars-street, to prove the merits of the new naphthaline fuel, manufactured by Mr. A. Wall, mention of the Wednesbury experiments with which was made in last week's *Mining Journal*. From the results obtained, it is anticipated that the fuel will become one of the most serviceable yet produced. It is stated that its chief advantage is that the sulphurous vapour arising from the fuel in ordinary use is neutralised; in proof thereof, after something less than a pound of the naptha line had been thrown upon the furnace, and covered with a large quantity of new lumpy coal, no smoke was emitted—in fact, not a particle of free carbon was visible, and nothing but pure hydrogen, or smoke that had not been burned, was to be seen in the white moisture, or steam, which arose from the coal. The bars of iron which were heated by the fires charged with the patent fuel, were in a more perfect state of fusion than those which had been subjected to the ordinary coal fire, and were welded with greater completion, owing, no doubt, chiefly to the absence of flaking, which is by this method obviated to a very great degree. The workmen themselves said that the application in smithies of this fuel would be a great boon to them and their employers, as all the smoke which usually attends the blowing of the forge would be done away with by it, and the work would be "turned out" much more satisfactorily to both parties.

It is to be hoped that Messrs. Clinton and Owen will find the naphthaline fuel as economic and efficient when generally introduced as in the experimental trial above alluded to; for, should they do so, it may reasonably be expected that not only will an improved quality of iron be produced, but that much of the small coal now comparatively worthless will be utilised. The reactions which take place to bring about the results recorded are not, it is true, so apparent to the practical chemist of ordinary experience as those obtained in some other processes; but this matters little so long as the effects are produced. It may happen that Mr. Wall's discovery will be the means of enabling existing chemical theories to be rendered more nearly accurate; and if Mr. Wall succeeds in decomposing firedamp without any effect being produced upon the material used to decompose it, his claim to be considered a chemist of unquestionable merit will be so fully established that his opinion will be received as conclusive. Every step taken in the development of the invention will be duly recorded in the columns of the *Mining Journal*.

GEOLOGICAL SOCIETY OF LONDON.—May 25: Mr. W. J. Hamilton, President, in the chair. The Rev. J. Chadwick Bates, M.A., F.R.A.S., incumbent of St. Martin's, Castleton Moor, near Manchester; Mr. William Brooke, Brook-street, Manchester; Mr. William Henry Nevell, Llangennech-park, Llanelly, Carmarthenshire; and Mr. John Pentecost, F.C.S., Park-street, Torquay, were elected Fellows.

The following communications were read:—

1.—"On the Geology of part of the North-Western Himalayas," by Capt. Godwin-Austen: with Notes on the Fossils, by Mr. T. Davidson, F.R.S., F.G.S., Mr. R. Etheridge, F.G.S., and Mr. S. P. Woodward, F.G.S., communicated by Mr. R. A. C. Godwin-Austen, F.R.S., F.G.S.

2.—"On the Cetacean Fossils termed *Ziphius* by Cuvier, with a notice of a new species (*Belemnoziphius compressus*) from the Red Crag, by Professor T. H. Huxley, F.R.S., F.G.S.

The next evening meeting of the society will be held on June 8. On Wednesday the following papers will be read:—1. "On the Rhætic Beds and White Lias of West and Central Somerset, and on the Discovery of a new Fossil Mammal in the Grey Marlstones beneath the Bone-bed," by Mr. W. Boyd Dawkins, B.A., F.G.S.—2. "On the Geological Structure of the Malvern Hills," &c., by Mr. H. B. Holl, M.D., F.G.S.—3. "On the Reptiliferous Rocks and Footprint-bearing Strata of the north-east of Scotland," by Prof. R. Harkness, F.R.S., F.G.S.—4. "On the Fossiliferous Rocks of Forfarshire and their contents," by Mr. James Powrie, F.G.S.

THE DURHAM COAL TRADE.—The iron and coal trades continue in about the position last reported. There is a fair demand for the staples of the district; and, although the over-sea trade to the Baltic and the London trade have, from sufficiently obvious causes, been slacker than is usual at this time of year, other causes of demand have kept up the traffic in black diamonds at a very fair degree of activity. There is little trouble with the workmen in the district, so far as the coal trade is concerned; and the experiments in coal-cutting by machines at Hetton, Cassop, Broomhill, &c., have been carried out quietly and successfully. The lease of Castle Eden steam colliery from Mr. Rowland Burdon to Messrs. Cooke and Co. has been completed, and the new firm are in possession. We understand an arrangement has been come to by which the time in which Government required a second shaft to be sunk to the important and extensive workings at this place, where the only steam coal of South Durham was for years worked by the old-established firm of T. Richardson and Son, of Hartlepool, has been extended; and Mr. Johnson, of Haswell, has been appointed viewer. The transfers recently reported of some of the West Hartlepool collieries to new hands will not, it is understood, affect the traffic or destination of the produce of these collieries, except by securing the concentrated attention to the development of their resources of gentlemen conducting separate enterprises, greater activity and efficiency may be superinduced.

THE CLEVELAND IRON TRADE.—No change has occurred in the number of iron blast-furnaces now in operation in the South Durham and Cleveland district. The 11 at Consett are still the only non-producing furnaces. The new rolling-mills and other works on the Tees are being pushed forward with great activity, and in all probability this year will see the present pig-producing capabilities of the district increased 15, and the manufacturing iron ditto 25 per cent. The Hartlepool Rolling Mills Company will be in working order by Oct. 1 next; and the rolling mills, &c., at West Hartlepool are also being rapidly advanced. The opening up of adjacent mineral fields, or more properly remote sections of the same geological stratum as that which has in a few years created the gigantic operations of Cleveland iron industry and enterprise, continues to occupy considerable attention, and to incite to much speculation. The southern acclivities of the Cleveland range are proposed to be approached and pierced by railways in three or four different directions, respecting which the usual "decoy-duck" statements are already being put forth in anticipation of parliamentary applications; but in all probability (with the exception of the coast line from Scarbrough, *via* Whitby and Staithes, to Saltburn or Guisbrough) the true lineaments of those projects will not present themselves before November next, when the parliamentary notices will have to be issued. Meantime, Cleveland proper has made a start little likely to be affected by these enterprises. Its proximity to the Durham coal field is its mainstay. One of the speakers at the recent railway extension opening in Lincolnshire put it that 33 per cent. of iron was obtainable from the ore in that district, by the use of 35 cwts. of Yorkshire coal to every ten of ironstone—that is to say, that 5¼ tons of Yorkshire coal is required to every ton of Lincolnshire pig-iron produced. Well, this is something. A few years ago no one expected to see iron pigs produced at all in near enough proximity to be shipped at Grimsby; but it is far from effecting the wonderful concurrence of favourable circumstances which have marked out Cleveland as the Staffordshire of the future. Here, within from two to six miles of the mine at which the iron is wrought, the smelter can have coke delivered from South Durham at 10*s.* per ton, free at the furnace; 12*s.* 6*d.* worth of that coke smelts 3¼ tons of Cleveland ironstone, yielding 1 ton of pig-iron. We do not think Lincolnshire can come up to that, nor any other iron-producing district in England. Prices remain about the same. New orders are not numerous, but stocks are not increasing. A new company—the Castleton Iron Company, with a capital of 50,000*l.*—will shortly be laid before speculators. The company is proceeding to register, and applications for shares are being rapidly taken up. Many of the directors are highly skilled in the trade.—*Stockton and Hartlepool Mercury.*

HOLLOWAY'S OINTMENT AND PILLS—CONCLUSIVE EVIDENCE.—Scarcely a day passes without leaving behind it some proofs of the curative powers of Holloway's world-esteemed ointment and pills. A lady writes from New Ollerton, Notts, on March 7, 1864:—"I beg leave to state that a few weeks ago I had the misfortune to bruise my leg most severely. To my great surprise and inexpressible delight your wonderful remedies were no sooner applied than they gave me ease, stopped inflammation, and made a perfect cure in an incredible short time." Testimonials such as the foregoing, which might be multiplied to any extent, should console the afflicted, and give hope to the despairing, when worn out by maladies which seem unrelievable.

SECRETARY.—WANTED, a GENTLEMAN of POSITION and INFLUENCE as SECRETARY to a PUBLIC COMPANY. Salary liberal. Would be required to deposit £500. Address, "A. Z.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

STEAM ENGINE.—WANTED, for the GREAT LAXEY MINING COMPANY, ISLE OF MAN, a 20 in. HORIZONTAL HIGH PRESSURE ENGINE, from 4 to 5 ft. stroke, with CORNISH BOILER from 8 to 10 tons weight.—Particulars, with price and the earliest time at which delivery of the same can be made, to be sent to Mr. R. ROWE, manager, Laxey, Isle of Man.—May 18, 1864.

NEW CROW HILL MINE.—WANTED, a WATER WHEEL, 15 to 20 ft. diameter, and 4 ft. to 6 ft. breast. Full particulars, price, where and of what material built, to be addressed to Mr. JEHU HITCHINS, the secretary, St. Michael's House, St. Michael's-alley, Cornhill, London.—Dated May 26, 1864.

FOR SALE, ONE ENGINE, cylinder 43 in. diameter, 7 ft. stroke, with piston, cross-head, connecting rod, and steam box, all complete. Also, ONE WROUGHT-IRON SHAFT, 12 in. square, 14 ft. long, with wrought-iron crank and ditto. FLY WHEEL, 21 ft. diameter, weight about 17 tons.—Apply to Mr. S. HOLMES, Manager United Merthyr Collieries Company, Cwm Neol Colliery, Aberaman, near Aberdare.

DIVIDEND TEN PER CENT. PER ANNUM.—TO BE SOLD, FIVE HUNDRED SHARES (of £1 each, fully paid-up), at par, in the WIVELISCOMBE SLATE COMPANY (LIMITED).—Apply to Mr. RUNDALL, 43, Moorgate-street, City.

LIVERPOOL.
MR. C. D. BUTT, MINING AGENT AND SHAREBROKER.
(Established 5¼ years.)
Special attention paid to the mining interest of North Wales, including the Welsh gold mines.
N.B.—A practical mining engineer and surveyor of acknowledged ability and first-class testimonials is attached to Mr. Butt's office.
Special surveys and reports undertaken.

THE CLOWANCE WOOD MINING COMPANY (LIMITED)
Capital £15,000, in 3000 shares of £5 each; 30*s.* per share paid.
No call can exceed 10*s.*
DIRECTORS.
MILES CHARLES SETON, Esq., Treskerby and Wheal Seton, Cornwall—CHAIRMAN.
JAMES BORMAN, Esq., Messrs. Hickie, Borman, and Co., Leadenhall-street, London.
ALEXANDER CALDER, Esq., 79, Cannon-street (Director of the Marine Investment Society).
WILLIAM CREMER, Esq., Brighton (Director of the Terriccio Mining Company).
ROBERT M'CONNELL, Esq., merchant, Liverpool.
BANKERS—The National Bank, London.
AUDITOR—Edward Pullein Esq. (Messrs. Harding, Pullein, Gibbons, and Co.)
OFFICES,—15, NEW BROAD STREET, LONDON.

One hundred and twenty-five shares in this valuable mine to be sold at 31*s.* 6*d.* each.
This property is now being actively developed, and promises the most remunerative results, and it is confidently expected that the shares will stand very high in the market.
The mine is situated in the parish of Crowan, the best mining district in Cornwall, and is entirely surrounded by rich and profitable mines, that have been worked to a great depth, viz.—Crenver, Abraham, Binner Downs, Treasury, &c.; and it is the opinion of the best mining authorities that this mine will prove equally as profitable, or more so, than the average of the surrounding mines. The shaft is only 3 fms. below the adit, from which several tons of rich ore have been raised; it will, therefore, be seen that the cost of raising the ore will be little, and the chances of large dividends great.
These shares are held by a proprietor who will still retain a large interest in the company.
Further particulars, and plans of the district, may be obtained by addressing Mr. THOMAS, 5, Upper Homerton, London, N.E.

THE ROARING WATER MINING COMPANY (LIMITED).
Incorporated pursuant to the Companies Act, 1862.
Capital £18,000, in 6000 shares of £3 each.
10*s.* to be paid on application, and 10*s.* on allotment.
DIRECTORS.
Sir JAMES DOMBRAIN, 20, Molesworth-street, Dublin. [Company).
Col. BUSH, 55, York-terrace, Regent's Park (Director of the Quebrada Land and Mining
CHARLES T. HAWKINS, 12, Broad-street, Oxford. } Directors of the St. Just United
WM. OGILVIE, 1, Angel-court, Throgmorton-street. } Mining Company (Limited).
HENRY CHURCHILL, Deddington, Oxfordshire.

This company has now been in existence for twelve months, and from the great success that has attended its development during that period, it has been determined by resolution at the general meeting, held on the 23d day of March, 1864, to issue the remaining 1800 unallotted shares. Applications will, therefore, be received in the usual form.
This property is situated in the barony of West Carberry, county of Cork, a district well known among mineralogists as being rich in mineral deposits. The sett extends over 1½ mile in length, and three quarters of a mile in breadth, and is held for a term of 31 years, at a royalty of 1-18th, with a clause for renewal for the same term.
The first trials upon this property were made by the Rev. Dr. Trail, of Schull, who lost his life during the famine fever; he expended some thousands upon the mine, and tested some of the valuable lodes that have been opened upon during the past year, and found to contain rich purple and yellow copper ores, silver, malachite, and strong traces of gold. These lodes are the same as run through the parishes of Ballydehob and Schull, and are being worked upon with great success in the Cappagh and Ballycummisk Mines; and the general opinion prevails that they are the same lodes as the Berehaven Mines, which have been returning for many years £60,000 per annum.
There are 13 lodes upon this sett, and the result of the past year's workings has been to develope three of them. The captain in one of his reports states, as to Grady's lode—"I am very glad to inform you that for many years I have not seen a richer lode than is laid open here; the ore is of a peculiar character, which is rather difficult to describe—however, I send by this mail a sample of it, which will speak for itself, and I should recommend an assay of it to be made for copper and silver."
The assay has been made by Messrs. Johnson and Sons, the Government assayers, and found to contain 27 per cent. of fine copper, and 69 ozs. 10 dwts. of silver to the ton.
The later reports are equally satisfactory. The shaft at Grady's lode is sunk nearly 20 fms.; Gillman's new shaft is down 15 fms.; and the new lode will be cut from Grady's shaft in about a fortnight, which there is every reason to believe will be a very valuable one. There is about £200 worth of ore now at surface, which will be sold at Swansea; some portion of it is estimated at £40 per ton.
The directors recommend an early application to the London and County Bank, Lombard-street; Messrs. METRICK and GEDGE, solicitors, 4, Storey's-gate, Great George-street, Westminster; or to the manager, Mr. THOMAS COOPER SMITH, 15, Finsbury-place South, Moorgate-street, London, where any other information may be obtained, and the usual forms of application.

THE GREAT NORTH VOR TIN AND COPPER MINING COMPANY (LIMITED).
To be incorporated under the Joint-Stock Companies Act, 1862, by which the liability of shareholders is strictly limited to the amount of their respective subscriptions.
Capital £25,000, in 5000 shares of £5 each.
Deposit £1 per share on application, and £1 on allotment.
DIRECTORS.
JOSEPH ATWELL, Esq., 72, Bedford-gardens, Kensington (Chairman of the Deal and Walmer Pier Company). [Company).
JAMES BANCKS, Esq., Broxbourne (Director of the Tamar and Callington Railway
ERNEST FELLOWES, Esq., Sarbiton (Director of the Central Gryllis Mining Company).
MOFFATT C. W. HORNE, Esq., 29, Guildford-street, Russell-square.
General MASON, South Parade, Trafalgar-square, Brompton.
JOSEPH NIGHTINGALE, Esq., 150, Leadenhall-street, E.C., and Kilburn.
BANKERS—The Alliance Bank (Limited), Lothbury.
BROKERS—Messrs. Aarls and Co., 41, Lombard-street.
SOLICITOR—H. Fryer, Esq., Gray's Inn.
AUDITORS—To be elected by the shareholders.
SECRETARY—G. Bedford, Esq.
OFFICES,—11, ST. BENET'S PLACE, GRACECHURCH STREET.

PROSPECTUS.

This company is formed for purchasing and working the mines formerly known as the Leedstown Consols and Polgiase, with several contiguous lodes, now all included under the name of Great North Vor. The property will be held under a lease of 21 years, at the low royalty of about 1-18th, and is located in the midst of the Breage and Crowan Mines, which in the aggregate have made returns of about 2,000,000*l.* The mines in this district have sold the richest ores of copper and tin known in Cornwall, and considering the comparatively shallow depth yet attained in most of the mines, the produce in quality and quantity of the ores of metals raised is remarkable. The only two deep mines in the district are on the Wheal Abraham and Great Wheal Vor lodes.
The Illogan and Camborne districts, considered by some as the most productive and the safest in the county for speculators, cannot show such a favourable result—a result obtained from a small piece of country not more than six square miles of area.
Most of the lodes operated on in this district have given a profit at the time when the price of metal was very low, and the economy of mining had not reached by far its present comparatively perfect development.
Great North Vor is immediately surrounded by many celebrated mines, which have given immense profits, as will be seen below. The tin and copper lodes contained in this sett are of the same highly mineralised nature as the contiguous lodes, which have been so profitable, and they are all embedded in the congenial killas which forms the basin contained between the Crowan and Godolphin granite ranges. In the opinion of practical miners the celebrated Wheal Vor flookan bisects this sett, heaving the lodes similarly to the Great Wheal Vor lodes, which are, in fact, parallel. To sufficiently realise the importance of this fact it must be remembered that this flookan has had a most material effect upon all the lodes which it intersects, viz.—Great Fortune, Wheal Metal, Great Wheal Vor, Polladras, Wheal Mount, Wheal Mary, Carzise, Tremayne, and Alfred Consols, where large bodies of ore were found on each side of this flookan.
This mine was first worked in 1822 by Capt. W. Simmons (the oldest and most fortunate miner in the parish), who found a deposit of copper ore worth about 300*l.* close to the surface, adjoining the flookan on the east. Strange to say, this lode was not proved in depth; an adit was, however, driven for 350 fms. long on the course of it, thus opening up the mine to the great benefit of this company.
Two tin lodes, a few fathoms south, have since been partially opened on the 40 under adit, and about £8000 worth of tin sold. There is here a very promising lode, but it is not developed to any great extent.
On the north lode, in the 10 fathom level east, is a good lode, which it is expected will at once pay for working.
There are two south lodes of copper, which are unproved; some splendid gossan has, however, been raised from the backs, and these lodes are considered to be a most valuable feature in the sett.
The Old Wheal Vor mine produced for a lengthened period the greatest quantity of tin ore ever returned by any one mine in the world. Its returns were twice or thrice as large as the present yield of Dolcoath Mine, which, next to Old Great Wheal Vor, has been the richest and most profitable mine of modern times, and has given its fortunate proprietors £750 per share in dividends, and the present market value of the shares is £550 to £600.
When Old Wheal Vor was productive the price of black tin was only £35 to £40 per ton, and on that low price the mine gave profits of £4000 per month. Had the average price of black tin been then, as now, upwards of £70 per ton, the profits would have been £10,000 or £12,000 per month at the lowest estimate.
The Great North Vor Mine is situated between Hayle and Camborne, and is within two miles of the main line of railway. The old Godolphin Mine adjoins the sett in the west, Great Wheal Vor lying to the south, while the celebrated Crenver and Abraham is on the east. Each of these mines has, as is well known, returned immense quantities of ore. A provisional agreement has been entered into for the purchase of the leases of this property for £2500 in cash and £3000 in shares fully paid up.
The value of the work done on this sett cannot be too highly estimated. The company has, in fact, the advantage of about £10,000 worth of the former proprietors' work. The engine-shaft is clear to the adit, and the company's operations can be satisfactorily commenced immediately. The engine is fixed.

PROFITS REALISED FROM THE ADJACENT MINES.

East Treasury—First working	£ 90,000	Julia	£300,000
" Second working.	50,000	Strawberry	120,000
Crowder	73,000	Relistian—Last working	10,000
West Treasury	6,000	Keyseys	Paid cost.
Wheal Sarah	85,000	Wheal Janey	£ 30,000
Binner Downs, above the 40	80,000	Tremayne—Present working	2,000
Abraham—Second working	36,000	North Binner Downs	25,000
" First working	250,000	Great Wheal Vor—Last working.	500,000
Carzise	20,000	Polladras	—
Wheal Mary	12,000	Wheal Metal	60,000
Wheal Mount	50,000	Great Fortune—Present working	12,000
Godolphin	116,000		

Applications for shares may be made in the following form to the bankers, brokers, or secretary, at the office of the company, where plans and sections, with specimens of the lode, may be seen, and full prospectuses, with reports, obtained.
In the event of no allotment being made, all deposits will be returned in full.

FORMS OF APPLICATION FOR SHARES.

To the Directors of the Great North Vor Tin and Copper Mining Company, Limited.
GENTLEMEN,—Having paid into your bankers the sum of £ , being a deposit of £1 per share on shares in the above company, I request that you will allot me that number; and I hereby agree to accept such shares, or any less number that may be allotted to me; and I authorise you to place my name upon the register of shareholders for the shares so allotted.
Name in full.....
Residence .....
Date ..... Profession or business.....

THE PENNANT SLATE COMPANY (LIMITED).

To be registered under the Companies Act, 1862, which limits the liability of each shareholder to the amount of his shares.
Capital £50,000, in 10,000 shares of £5 each.
Deposit on application, 10s. per share; and £1 on allotment.
No call to exceed £1 per share, and an interval of not less than two months between each call.

DIRECTORS.

THOMAS CAMPBELL EYTON, E.q., Eyton, Shropshire.
HENRY KEATE, Esq., Shrewsbury.
JOHN BROUGHALL, Esq., Shrewsbury.
WILLIAM OVEY, Esq., Manchester.
JOHN TREASURE, Esq., Shrewsbury and Newport, Salop.
WILLIAM EDWARD BADDELEY, Esq., M.D., Newport, Salop.
DAVID EDWARDS, Esq., Newport, Salop.
URIAS BROMLEY, Esq., Manchester and Rhyl.

BANKERS.

Messrs. Rocke, Eyton, and Co., Shrewsbury.
The National Provincial Bank of England, Portmadoc.
The Union Bank of London, Temple Bar.
SOLICITOR—R. D. Newill, Esq., Wellington, Salop.
SECRETARY—H. H. Treasure, Esq., Chester-street, Shrewsbury.
OFFICES,—CHESTER STREET, SHREWSBURY.

PROSPECTUS.

This company is established for working the Pennant Slate Quarry, Carnarvonshire, which is situate about six miles from Portmadoc.

The quarry is most conveniently situated for economical working, being on a declivity of the mountain, which renders the expense of machinery for raising the slate unnecessary, and gives ample fall and space for the deposit of waste. There is an abundant and never-failing supply of water-power for working saw mills, &c.

The property, which comprises about 170 acres, is held under a lease for 42 years, at low royalties, with a minimum rent of £50 a year.

The vein, which is nearly 150 yards in thickness, extends through the property for a length of about half a mile. It crops out on the surface, consequently there is very little top or waste rock to remove.

The quarry is partially opened, and the quality of the slate is not to be surpassed by any in North Wales. The colour, a greyish blue, commands a ready sale in the market at the highest price, and the extreme lightness of the slates renders them peculiarly advantageous for exportation.

The quarry is situate about three miles from a tramway leading to Portmadoc, which is the great place of export for slates. A railway is projected through the property, which will open up through communication to the various ports on the coast, and also to the inland districts.

The slate has been subject to nearly every known test. It stands heat without being in the slightest degree damaged.

Three quarries are now being worked in the same vein in the immediate neighbourhood, from each of which slates of the finest quality are produced.

The demand for slates of all kinds has lately increased to such an extent that the old quarries in the Principality cannot execute present orders in less than two years.

An arrangement has been entered into with the present lessees for a transfer of their interest in the quarries, with 170 acres of land, in consideration of £4000 to be paid in cash, and 3200 fully paid-up shares, which includes the expenses of opening up to the date of transfer, and also the plant, &c. They are so satisfied as to the ultimate success of the undertaking that they have agreed that no dividend shall be paid upon those shares until the other shareholders shall have received a dividend of 10 per cent.

Looking at the quality of the slates produced, and the unusual facilities which exist for working the quarry, there can be no doubt that a dividend equal to that paid by the best quarries in Wales will in a short time be secured. In the meantime it is calculated that the slates and slabs which can be made during the opening of the quarry will yield a good dividend to the shareholders.

Specimens of the slates may be seen at the office of the company, Chester-street, Shrewsbury.

Prospectuses, forms of applications for shares, and copies of reports, may be obtained from the secretary or solicitor, to whom applications for shares may be made; but no application will be entertained unless accompanied by a banker's receipt for 10s. per share on the number of shares applied for.

If more shares are applied for than are allotted, the surplus of the deposit, on application, will be applied towards the payment of the further deposit on the shares allotted. If no allotment be made the deposits will be returned in full, but without interest.

NORTH WHEAL SETON COPPER MINING COMPANY (LIMITED).

Capital £25,000, in 1000 shares of £25 each.
Deposit, £2 10s. per share.
CHAIRMAN—J. T. FENTON, Esq., Stapleton House, Leeds, Colliery Owner.
BANKERS—Messrs. Beckitt and Co., Leeds.
SECRETARY—G. Simpson, 55, Albion-street, Leeds.
MANAGERS—C. and C. Thomas, Redruth, Cornwall.

This company is formed for the purpose of working the North Seton Mine, which is situate at Camborne, in Cornwall, the richest district in Europe for copper, and to the west of the celebrated Setons and Tolgus Mines, which have realised immense profits, the West Seton Mine alone having returned in one year £49,000, and still being one of the richest mines in the district.

Shafts have been sunk in this sett, and three promising lodes discovered, two of them from 4 ft. to 5 ft. wide, and the other from 7 ft. to 8 ft. wide.

Applications for shares and prospectuses to be made to Mr. GEORGE SIMPSON, 55, Albion-street, Leeds.

GREAT WHEAL METAL TIN MINING COMPANY (LIMITED).

Incorporated under the Companies Act of 1862, with Limited Liability.
Capital £20,000, divided into 10,000 shares of £2 each.
Deposit 10s. per share on application, and 10s. per share on allotment.
No further call will be made for six months, as it is considered by competent authorities that from £4000 to £6000 will be sufficient to bring the property into a dividend-paying state.

DIRECTORS.

Sir WILLIAM SMITH (Director of the Great Laxey Mining Company), Carlton Club.
WILLIAM A. DUNN, Esq. (Merchant, Newcastle-upon-Tyne and London), 11, Kensington Park Gardens, W.
JOSEPH TILSTON, Esq. (Director of the General Rolling Stock Company), Chepstow-place, Bayswater, W.
JOHN JOHNSTONE, Esq., J.P., Friarstown House, County Leitrim, and 31, Belgrave-road, S.W.
CHARLES JOSEPH CARTTAR, Esq. (Coroner for Kent), Catherine House, Blackheath, S.E.
TEMPLETON HAWKINS, Esq., 39, Woburn-place, W.C.
LOUIS LEVISON, Esq. (Levison and Co., Merchants), Consul for Chili, 31, Threadneedle-street, E.C.
EDWARD CHARLES LEA, Esq. (Mos, Lea, and Co., Merchants), 16, Water-lane, E.C.
W. S. SUTTON, Esq., Annan Lodge, Brighton.
WILLIAM CREMER, Esq. (Director of the Terriccio Mining Company), 69, Sloane-street, S.W.

BANKERS.

London ..... The Metropolitan and Provincial Bank (Limited), 75, Cornhill, E.C.
Cornwall ..... Messrs. Vivian, Grylls, Kendall, and Co., Helston.

AUDITORS.

Sydney G. Smith, Esq., Public Accountant, 19, Coleman-street, E.C.
And one member to be elected by and from the body of shareholders.
SECRETARY (pro tem.)—Mr. Fras. H. Hearn.
OFFICES,—GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company has been formed for the purpose of working a valuable piece of mineral property, situated in the parish of Breage, county of Cornwall, in the Great Wheal Vor and the Wheal Metal mining district.

The present rich lodes in Wheal Metal pass through the Great Wheal Metal sett, and the Great Wheal Vor elvan course: the latter forms a junction with the whole of the lodes in the Great Wheal Metal Mine. (See geological plan.)

The main lode in Great Wheal Vor has produced upwards of £2,000,000 worth of tin, and that at a time when the ore was selling at £30 to £40 per ton, at which price profits to the extent of £3000 and £4000 per month were returned to the shareholders.

The shares in Great Wheal Vor (or Wheal Metal Company) were selling at £6 per share twelve months since, which would amount to £36,000 for the entire property. Important discoveries have since been made, and the mine is enhanced in value upwards of £200,000, the present price being £240,000; independent of which, it is giving dividends to the extent of £18,000 to £20,000 per year.

The directors have consulted some of the first mining authorities in the county of Cornwall, including the land and mineral surveyor for Cornwall and Devon; the mineral agents of the Rev. H. M. St. Aubyn and of J. J. Rogers, Esq., M.P.; the managers of Great Wheal Vor, Great Wheal Fortune, Great Work, Leeds and St. Aubyn, West Grylls, Gurlyn, and of Sithney Carnmeal, &c.; the whole of whom speak in the most positive terms as to the certainty of success in this undertaking.

Prospectuses and forms of applications for shares may be obtained of the bankers, directors, or secretary.

THE CREDIT MOBILIER COMPANY OF LONDON (LIMITED).

54, THREADNEEDLE STREET, LONDON, E.C.

BANKERS.

The London and Westminster Bank, Lothbury, E.C.; and the Union Bank of London.
The company discount approved mercantile and other bills, make advances on negociable securities, and undertake financial business generally.
WILLIAM HALL, Sec.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.
MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING, RAILWAY, and OTHER SHARES.
His monthly "Circular" for April contains a selected list of Cornish and other mines. Forwarded on receipt of six postage stamps.
38, Dowgate-hill Chambers, London, E.C.

MR. THOMAS CARTHEW, MINING OFFICES, 17A, SISE LANE, BUCKLERSBURY, LONDON, E.C.
Reliable information respecting mining generally can be obtained by applying as above.
Bankers: Roberts, Lubbock, and Co., 15, Lombard-street, London.

MR. BRENTON SYMONS WILL BE IN the MINERA MINING DISTRICT until the 12th inst.—Letters to be addressed Post-office, Minera.

MR. BRENTON SYMONS, MINING ENGINEER AND SURVEYOR, can PROCURE MINING SETTS in ANY DISTRICT in CORNWALL or DEVON.—18, Hatton-garden, E.C.

MR. BRENTON SYMONS INSPECTS and REPORTS on ANY MINERAL PROPERTY. In all cases where procurable a plan will accompany his report.—18, Hatton-garden, E.C.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 13th instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—
CAKE COPPER.
And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 13th day of June, 1864, after which hour no tender will be received.
GERALD C. TALBOT, Director-General.
India Office, June 3, 1864.

TENDERS FOR COALS.—The NOTTINGHAM GAS LIGHT AND COKE COMPANY are DESIROUS to RECEIVE OFFERS for SUPPLIES (amounting in the aggregate to FORTY THOUSAND TONS) of SOFT COALS and SOFT COBBLES or NUTS, for the period terminating on the 31st of May, 1865.
The large coals and the cobbles or nuts are to be separately delivered, where and as from time to time directed, by and at the expense of the contractors, upon the gas company's station, in the East Croft, at Nottingham, and at the Midland Company's Railway station, at Nottingham, and also on the Gas Company's railway sidings, at Radford and Basford respectively: and at and after the rate of one-sixth part of such total quantity in each calendar month, commencing with the month of September next, till the company shall be satisfied with the amount of accumulated stock, and afterwards at such rate as shall be from time to time directed, till the agreed quantity shall have been delivered.
The company will undertake to receive from each person or firm whose tender may be accepted a total quantity of 5000 tons at the least; but they do not bind themselves to accept the lowest or other tender or tenders, till after a satisfactory trial of the coals and cobbles or nuts, to which such tender or tenders may relate, shall have been made. They are to be the best of their kind, and as free as possible from sulphur, bats, bind, refuse, and dirt, and shall be weighed (20 cwts. to the ton) upon the railway company's machine, or upon such other machine as may be mutually agreed upon.
Payments will be made monthly, if and so long as the contract shall be duly fulfilled, to the extent of nine-tenths of the amount of the verified invoices, and the balance will be discharged on the satisfactory completion of the contract.
Sealed tenders (to be made on forms obtainable at the company's office), specifying the description of coals and the pits at which they are to be raised, and stating the prices for deliveries at the several places, and in manner and subject to the conditions aforesaid, must be delivered at the office of WILLIAM HUNT, Esq., clerk to the company, on or before Monday, the 13th day of June next.
The respective contracting parties will be required to execute an agreement, to be prepared by and to the satisfaction of the solicitor of the company.
By order of the Committee,
T. HAWKSLEY, Engineer to the Company.
Nottingham Gas Office, May 24, 1864.

BUTE DOCKS, CARDIFF.—Notice is hereby given, that the TRADE at the BUTE WEST DOCK will be RESUMED NEXT WEEK.
By order of the Trustees of the Marquess of Bute,
GEORGE JOHNSON, Captain R.N., Dock Master.
Bute Docks Office, Cardiff, June 1, 1864.

SPIEGELEISEN.—SPECULAR PIG IRON, of the VERY BEST QUALITY, £7 10s. PUDDLED STEEL, in ◇ bars, £11 10s., f.o.b. at Hull. Samples on application. JULIUS GOLDSTEIN, Hamburg.

WANTED, by a Cornish captain, a SITUATION, at home or abroad, either in a TIN, LEAD, or COPPER MINE, as UNDERGROUND AGENT or DRESSER. The advertiser has had many years' experience, and is well acquainted with mining in all its branches. Testimonials as to character and ability, with unexceptionable references, can be produced.—For particulars, apply to "G. O.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION as MASTER SINKER. The advertiser has had many years' experience in extensive sinking concerns, both in England and Scotland. References, &c., if required.—Address, "A. B.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

HEALTHY HABITATIONS FOR THE WORKING CLASSES.—WANTED, a GENTLEMAN or LADY to CO-OPERATE in DISPOSING of a VALUABLE INVENTION (PATENT) of PUBLIC UTILITY. Advantageous terms, and easy execution.—Address, "D. L.," 18, Melton-street, Euston-square, N.W.

ASSAYER.—A YOUNG MAN is OPEN to a RE-ENGAGEMENT as ASSAYER, or in any capacity where a thorough knowledge of chemistry would be available. No objection to go abroad. Terms moderate.—Apply by letter, to "S. V.," 219, Marylebone-road, W.

AN ASSAYER, of good PRACTICAL EXPERIENCE, WANTS a SITUATION. Good references, &c.—Address to "X.," Post-office, Lymington, Hants.

TO CAPITALISTS.—WANTED, a PARTNER, with from £5000 to £10,000, in a FIRST-CLASS COLLIERY in NORTH WALES. A colliery proprietor or mining engineer preferred, but not essential.—Address, "W. 15," Post-office, Liverpool.

TO ENGINEERS, CONTRACTORS, AND OTHERS.—PERSONS DESIROUS of PURCHASING the PATENT RIGHT or ROYALTY for JEWELL'S PATENT FLUE AND TANK BOILER are REQUESTED to FORWARD OFFERS to his agent, Mr. W. T. RAWLE, Branch Patent Office, 39, Budge-street, Bristol, where plans and copy of specification may be obtained.

TO INVENTORS AND PATENTEES.—A GENTLEMAN having an extensive connection with manufacturers, merchants, and others would be GLAD to UNDERTAKE the SALE of INVENTIONS or PATENTED ARTICLES, on commission.—Apply to Mr. RAWLE, patent office, 14, Clare-street, Bristol.
N.B.—Continental and foreign agencies solicited.

TO IRON MANUFACTURERS.—A PARTY in GLASGOW, who has an extensive connection, and who could influence a large trade with Clyde shipbuilders, DESIRES a FIRST-CLASS AGENCY for ANGLE and T-IRON SHIP and BOILER PLATES, and SHEET IRON, or for any of these singly.—Address M. A. C.," care of Messrs. Anderson and Watt, 64, Buchanan-street, Glasgow.

TO COAL PROPRIETORS.—TO BE LET OR SOLD, the WHOLE of the COAL UNDER the RED HEUGH ESTATE, near NEWCASTLE, being about TWO HUNDRED ACRES in EXTENT.—Apply to Mr. JOHN CONWAY, miner, Rabbit Bank, near Gateshead; or Mr. BINTLEY, Kendal.

TO BE DISPOSED OF, a VALUABLE MINING SETT in the DOLGELLY GOLD FIELD, containing several fine auriferous quartz lodes, as well as a fine vein of slate. An ample supply of water for all purposes.—Application to be made in the first place to "T. W.," Post-office, Dolgelly.

FOR SALE, complete SETS of the MINING JOURNAL for the years 1860, 1861, 1862, and 1863. Also, several extra odd numbers.—Apply to "C. U.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

FOR SALE, the RIGHT to the PATENT of a VALUABLE IMPROVEMENT in VALVES and BUCKETS for PUMPS, and in VALVES or COCKS for OTHER USES.—For particulars, apply to Mr. W. T. RAWLE, patent and mining agent, 39, Budge-street, Bristol.

FOR SALE, 19½ in. FORCING PUMP, 14 in. LIFTING PUMP, HAND PUMPS, pumping crank, lifting screw, pit chain, and other colliery material.—Apply to Mr. JOHN FARLER, Nailsea, near Bristol.

TO BE LET, a FEW BROAD GAUGE TEN TON COAL WAGONS.—Apply to Mr. D. WILLIAMS, Water-street, Llanelly.

NOUVELLE MONTAGNE COMPANY.—At the GENERAL MEETING, held at Liege, the 30th April, it was resolved that a DIVIDEND of THIRTY FRANCS PER SHARE should be DISTRIBUTED, after the 20th December next, against the coupon No. 11, for whole shares; and a DIVIDEND of SIX FRANCS against coupons, Nos. 11, 12, 13, and 14, of each fifth of shares. The payments will be made at Verviers, by Mr. IWAN SIMONIS; Paris, by Mr. ROUGEMONT DE LOWENBERG; London, Messrs. C. DEVAUX and Co.; Bruxelles, Messrs. MATTHIEU and FILS; Liege, Messrs. NAGELMACKERS and FILS; Engis, at the offices of the company.
Engis, le 21 Mai, 1864. V. BOUHY, Le Directeur-General de la Société.

BRAZIL.

THE ROSSA GRANDE GOLD MINING COMPANY (LIMITED).

Notice is hereby given that the CERTIFICATES FOR SHARES will be READY FOR DELIVERY, in exchange for the banker's receipts, on application at the company's offices, on or after the 15th day of June, 1864.
By order of the Board, J. JAMESON TRURAN, Sec.
182, Gresham House, Old Broad-street, London, E.C., May 31, 1864.

SOUTH AUSTRALIA.—CAPT. BRYANT (for 16 years second captain of the Burra Burra Mines) is PREPARED to EXAMINE and REPORT upon any MINES or MINERAL DISCOVERIES in the ABOVE-NAMED COLONY.—Address, Capt. BRYANT, Kooringa, South Australia.

MONEY.—CONTRACTORS and OTHERS can be ACCOMMODATED with LOANS, DISCOUNTS, &c.—Apply to Messrs. WILKINSON and Co., monetary negociators and arbitrators, &c., 25, Birchin-lane, Cornhill, London, E.C.

MINING OFFICES, 28, PRINCESS STREET, MANCHESTER.

LEIGH, MOLYNEUX, AND CO., MINE AGENTS AND SHAREBROKERS, BUY and SELL SHARES of EVERY DESCRIPTION, on commission or for nett cash.
Office of the Hazael Grove Silver-Lead Mining Company (Limited), JAMES LEIGH, secretary.

CHIVERTON MINING DISTRICT.—MR. R. SYMONS begs to inform the subscribers to his forthcoming Map that the delay of the publication has arisen from the circumstance that the boundaries of some of the mines are undetermined; as soon as these are settled the work will proceed to completion.
Truro, March 24, 1864.

ASSAYS AND ANALYSES UNDERTAKEN at MODERATE CHARGES, by MR. ARTHUR EVANS, LECTURER ON CHEMISTRY, NORMAL COLLEGE, SWANSEA.—Parcels to be directed Mr. A. EVANS, 12, High-street, Swansea.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL FURSDON MINING COMPANY.—By the direction of his Honour, the Vice-Warden, notice is hereby given that, on the 28th day of June inst., at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, this Court will PROCEED to MAKE a CALL of THREE POUNDS PER SHARE on all the contributories settled under Class A of the above-named company.
All persons interested therein are entitled to attend, at the time and place aforesaid, to offer objections to such call. WILLIAM MICHELL, Registrar.
Dated Truro, June 1, 1864.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN RE TRENCROM MINE.

TO BE SOLD, pursuant to an order made in a Cause Richards v. Gilliam and Others, dated the 3d day of February last, by PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 13th day of June next, at One o'clock in the afternoon—
5 (1024ths) SHARES of the defendant Stephen F. Gilliam,
5 (1024ths) SHARES of the defendant Samuel Gribbell,
26 (1024ths) SHARES of the defendant Henry W. Oman,
6 (1024ths) SHARES of the defendant William Sincock; and
1 (1024th) SHARE of the defendant William England,
Of and in the said MINE.
JOHN GILBERT CHILCOTT, Truro
(Agent for E. S. Boyns, Penzance, Plaintiff's Solicitor).
Dated Registrar's Office, Truro, May 28, 1864.

TINCROFT MINES, REDRUTH.—A PUBLIC AUCTION WILL BE HELD at Tincroft account-house, on Tuesday, the 21st inst., at Two o'clock, for SELLING SIXTY FORFEITED SHARES in the ABOVE MINES, in lots to suit the convenience of purchasers.
The parties holding scrip certificates numbering 68, 114, 520, 809, 998, and 114, representing thirty shares in the Tincroft Mine, are requested to send such certificates to the purser for registration, if such scrip are really in existence.
June 1, 1864. WILLIAM TEAGUE.

DEVONSHIRE.

EXTENSIVE SLATE QUARRY, AND ONE HUNDRED ACRES OF LAND.

MESSRS. HEATH AND SONS have received instructions to SELL, BY AUCTION, in one or more lots, on Tuesday, the 7th of June, 1864, at Three o'clock P.M., at the Seven Stars Hotel, Totnes (unless previously disposed of by private contract), the DESIRABLE FREEHOLD ESTATE, known as WINSLADE, in the several parishes of South Pool, Stokenham, and Sherford, comprising 100 acres of arable, orchard, meadow, and pasture, with a convenient farm house, buildings, yard, and cattle sheds, together with eleven cottages and gardens, all let to respectable tenants, the rental amounting to £265.
Also, the WINSLADE SLATE QUARRY, renowned for the colour, size, and quality of the produce, in roofing slate and slabs (which has for several years been worked by, and is now in the hands of, the proprietor), with the engine houses, planing and sawing sheds, tank, and every convenience for the employment of from 50 to 100 men and boys, yielding in rent and profit from £1000 to £1500 per annum; and which, from the inexhaustible extent of the veins recently quarried, and running through the estate, is capable of considerable extension, at a comparatively trifling expense. The arrangement for tips and spoil heaps is ample, and at convenient levels, and the drainage is accelerated by means of an adit, which has been driven into the hill. Together with the valuable MACHINERY, PLANT, and appliances, all in good working condition (which cost several thousand pounds), including TWO POWERFUL STEAM ENGINES, capable of raising several hundred tons daily; pumps, planing, sawing, and slate making machinery of the most modern construction, trams, tramways, and all necessary gear, &c., inventories of which will be produced at the sale.
The above quarry is approached by good roads, about a quarter of a mile from the Frogmore Creek, a navigable arm of the Kingsbridge estuary, affording safe anchorage, and within four miles of the English Channel at Salcombe.
As a situation for carrying on an extensive slate business the above is unsurpassed: the certainty, also, as to quantity and quality of the vein, well known in London and other markets, and for which the demand is daily increasing; the cheapness of and facilities for transport of slate, and the importation of coals, rarely equalled; the cartage to the place of shipment not exceeding 1s. per ton; all requisite machinery being on the premises, and tramroads laid down, fit for immediate work; from 2 to 3 per cent. on the outlay being also guaranteed from the rental of land, are advantages which would render this a most eligible and safe investment for a practical enterprising capitalist, or a limited liability company.
For viewing, application should be made to Mr. STEPHENS, on the premises; and for printed particulars, conditions, and lithographed plans, to THOMAS TURNER, Esq., Carnarvon; E. C. LITTLE, Esq., solicitor, Stroud; Messrs. W. and H. P. SHARP, solicitors, 92, Gresham House, Old Broad-street, London; or to HEATH and SONS, land surveyors and estate agents, Totnes, Devon.

PRELIMINARY ANNOUNCEMENT.
IN THE WEST RIDING OF YORKSHIRE.

The very IMPORTANT RESIDENTIAL ESTATE, known as AKETON HALL, with the VALUABLE MANORS or reputed manors of AKETON, otherwise ACTON and FEATHERSTONE, situate in the parish of Featherstone, and abutting upon the Featherstone station, midway between Castleford and Pontefract, comprising a MANSION, surrounded by a DOMAIN of about ONE THOUSAND ONE HUNDRED AND TWENTY-FIVE ACRES of SUPERIOR LAND, divided into convenient farms, with numerous labourers' cottages and plots of accommodation land.

MESSRS. BEADEL are instructed to prepare FOR SALE, BY AUCTION, at the Mart, Bartholomew-lane, London, on Tuesday, the 28th day of June (unless an acceptable offer be previously made by private contract), the above very DESIRABLE FREEHOLD ESTATE (land tax redeemed), situate in the West Riding of Yorkshire, only two miles from Pontefract, and three from Castleford, skirted on one side by the Lancashire and Yorkshire Railway, and on the other by the North Midland, consisting of a commodious stone-built MANSION, surrounded by SEVERAL PRODUCTIVE FARMS, with residences, ample agricultural buildings, numerous labourers' cottages, and PLOTS of ACCOMMODATION LAND. The estate abounds throughout in COAL, and there are also excellent STONE QUARRIES upon the property. Further particulars will appear.—25, Gresham-street, London, E.C.

IMPORTANT TO COAL PROPRIETORS, CAPITALISTS, AND OTHERS.—The OWNERS of VALUABLE MINES of COAL, lying within and under a compact freehold estate of 150 acres, situate about three miles from the important manufacturing town of Blackburn, Lancashire, are PREPARED to treat for the ABSOLUTE SALE of the COAL, or to enter into favourable arrangements for leasing the same for a term of years. Good turnpike roads intersect the estate, and the same is within very easy distance of railway and canal.—For further particulars, apply to Messrs. ROBINSON and SON, solicitors, Blackburn.

RICH IRON, COPPER, LEAD, AND ZINC MINES TO LET.—The hematites, apathose, or steel and titanium iron mines, each extend 1¼ mile. Veins proven 10 to 30 ft. wide. The royalties referred to Glasgow practical ironmasters, freight only 2s. 3d. to Glasgow, and can be put on board for 1s. 9d. The copper, lead, and zinc are very rich. Like the British Copper Company's veins, belonging to Mr. Forlong, beautifully display the great value of the ores. The royalty is only 1-15th, and NO FIXED MONEY RENT ASKED.—Apply to the proprietor W. FORLONG, Esq., of Erins, near Tarbert, Lochfyne.

RICH LEAD DISCOVERY (see notice in another column of this day's Journal).—This large vein, 9 feet wide and 1¼ mile long, has been re-examined. It is easily wrought, and is on the surface. A lease will be given to one or two companies, and offers received till 25th June. Open to inspection.—Apply to WM. FORLONG, Esq., of Erins, Lochfyne.

TO MERCHANTS, SHIPPERS, ENGINEERS, &c.—TO BE SOLD, some NEW MACHINERY, which was made for exportation, and intended for the smelting of iron upon a small scale, comprising a PAIR of 24 inch BLOWING CYLINDERS, 3 ft. stroke, fitted with parallel motions, connecting rods, and cranks, to be driven by a water-wheel; also, the necessary winged gudgeons and carriages for water-wheel shaft and the penstock gearing. Also, some small castings, wrought hoops, wrought tunnel head platform, binder plates and rods, blast pipes, water tuyeres, &c., for a smelting furnace 6 ft. in diameter and 26 ft. high. Also, some castings and wrought-iron work for a wood tilt hammer. Also, blast pipes, water tuyeres, and sluice valve for a lumping fire, and a wrought cupola 3 ft. in diameter and 12 ft. high, with sluice valve, pipes, and muzzles.—The machinery, and plans of the same, may be seen on application to J. and G. DAVIES, Albion and Limerick Foundries, Tipton.

HORIZONTAL ENGINES FOR SALE, at very low prices:—One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

ON SALE, a FIRST-CLASS NEW HORIZONTAL STEAM ENGINE, has 12 in. cylinder, 2 ft. stroke, with strong link motion to valve for reversing. Very suitable for a winding engine. Price, £75. Also, one same size, with governor complete. Price, £75. Other sizes proportionately low.—Apply to ISAAC W. BOULTON, Ashton-under-Lyne.

AMERICAN PATENT INTERESTS FOR SALE.—1. PATENT No. 1822. July 16, 1861. IMPROVEMENT IN THE MANUFACTURE OF IRON.—This patent covers a process for treating iron, while in a boiling state, with electricity and nitrogenous substances. While the chemical affinity of the impurities for the iron is destroyed by the electric action, the sulphur, phosphorus, arsenic, and silicon are carried off by the simultaneously introduced nitrogenous salts. As source of electricity, the inventor employs the magneto-electric machine, which can be managed by any working man. A similar process is said to be now successfully introduced in England and France.
2. PATENT No. 446. February 14, 1861. IMPROVEMENT IN TOOLS USED IN THE MANUFACTURE OF IRON.—The application of this hollow working tool is of great advantage in the manufacture of puddled steel. By introducing ammonia, or another suitable salt, into the melted iron, cyanogen steel is quickly formed.
PATENT No. 35,276, dated May 13, 1862. IMPROVEMENT IN THE MANUFACTURE of IRON AND STEEL.—This patent covers two distinct improvements. The first contemplates the production of a hot-blast without the use of an engine, by a simple attachment to the blast, cupola, or puddling furnace wherein the gases and carbonaceous substances, issuing from the top of these furnaces, are purified and reconsumed. The second improvement covers the introduction of carbonizing and decaydizing agents into puddling and other furnaces, by means of a properly constructed hollow fire-bridge. The use of this improvement is particularly advantageous in the manufacture of puddled steel and peculiar qualities of iron.
4. PATENT ALLOWED. IMPROVEMENT IN THE MANUFACTURE OF IRON.—This patent covers the use of cinder, or waste of puddling and other furnaces, pulverised and prepared with some other ingredients, for the protection of puddling and other furnaces. This process has been tested at a large ironwork in the state of New York, and it was found that the same cinder, thus prepared, can be used four or five times without impairing the quality of the iron. It is an excellent substitute for the expensive iron ores which are now used for this purpose.
For terms and information, address "F.," MINING JOURNAL office, 26, Fleet-street.

SWANSEA COPPER ORE WHARVES,

Swansea, January 1, 1864.

GENTLEMEN,—We beg to inform you that, in consequence of the retirement of Messrs. W. and J. M. Williams from the copper ore trade, which they have carried on here for so many years past, we have resolved to enter upon that business, and for which purpose we have secured most eligible wharves, on the west side of the North Float, where vessels drawing 20 ft. of water can get alongside at all times. These wharves are now being covered in, and, together with a steam crusher now erecting, will, we expect, be completed in two or three weeks from this date.

The business we purpose carrying on is that of copper ore wharfingers, combined with metal and other general agencies, which will be managed by our Mr. Thomas Elford, who for 20 years has filled an important situation under Messrs. Williams, Foster, and Co., and for the last eight years has had the entire management of their large copper smelting works, and copper and metal rolling mills, in this locality, as well as the copper ore business of Messrs. W. and J. M. Williams, which we trust will be a sufficient guarantee to our friends that any business they may entrust to our care will be conducted with the most scrupulous attention to secure the best results for their interests.

Soliciting a share of your consignments of ore, regulus, and slab copper to this port, as well as a share of any general business you may have to transact in this quarter,

We remain, Gentlemen, your obedient servants,

ELFORD, WILLIAMS, AND CO.

REFERENCES:—Messrs. Williams, Foster, and Co., London and Liverpool; Messrs. Williams, Harvey, and Co., London and Liverpool; Messrs. Williams, Swansea; Messrs. Alex. Bell and Sons, No. 8, Finch-lane, London.

Gun Cotton Manufactory.

MESSRS. THOMAS PRENTICE AND CO.,

GREAT EASTERN CHEMICAL WORKS, STOWMARKET, SUFFOLK.

This manufactory has been established for the purpose of preparing GUN COTTON, according to the Austrian process, and was opened on the 26th of January last, under the inspection of Baron Lenk. Messrs. Thomas Prentice and Co. are now able to SUPPLY GUN COTTON, in its most approved form, either for the purposes of engineering and mining, or for military and submarine explosion, and for the service of artillery, as a substitute for gunpowder.

The advantages of Baron Lenk's GUN COTTON are the following:—

FOR PURPOSES OF ARTILLERY.—The same initial velocity of the projectile can be obtained by a charge of gun cotton one-fourth of the weight of gunpowder. There is no smoke from the explosion of gun cotton; it does not foul the gun, nor heat it to the injurious degree of gunpowder. There is much smaller recoil of the gun. The same initial velocity of projectile is produced, with a shorter length of barrel. In projectiles of the nature of explosive shells it breaks the shell more equally into much more numerous pieces than gunpowder. When used in shells, one-third the weight of gun cotton produces double the explosive force of gunpowder.

FOR CIVIL ENGINEERING AND MINING.—In driving tunnels through hard rock a charge of gun cotton of given size exerts double the explosive force of gunpowder, thus a smaller number of holes is necessary. It may be so used as, in its explosion, to reduce the rock to much smaller pieces than gunpowder, and so facilitate its removal. As gun cotton produces no smoke, the work can proceed much more rapidly, and with less injury to the health of the miners. In working coal mines the advantages of bringing down much larger quantities of material with a given charge, and the absence of smoke in the explosion, enable a much greater quantity of work to be done in a given time at a given cost. The weight of gun cotton required to produce a given effect in mining is only one-sixth part of the weight of gunpowder. In blasting rock under water the wider range and greater force of a given charge is a great element in cheapening the cost of submarine work. The peculiar local action of gun cotton, to which the effects of gunpowder show no analogy, enables the engineer to destroy and remove submarine stones and rocks, without the preliminary delay and expense of boring chambers for the charge.

FOR MILITARY ENGINEERING.—The facility of transport is increased, the weight of gun cotton being one-sixth that of gunpowder. The peculiar localised action of gun cotton facilitates the destruction of bridges and palisades, and every obstacle. For submarine explosion, gun cotton has the advantage of a much wider range of destructive power than gunpowder. For the same purpose gun cotton, from its lightness, has the advantage of keeping afloat the water-tight case in which it is contained, while gunpowder sinks it to the bottom.

FOR NAVAL WARFARE.—In the batteries of ships, between decks, and in casemated forts, the absence of smoke facilitates continuous rapid firing. The absence of fouling and of heating are equally advantageous for naval as for military artillery.

GENERAL ADVANTAGES.—Time, damp, and exposure do not alter the qualities of the patent gun cotton. It has already been preserved 10 years without injury or decay. It can be transported through fire without danger, simply by being wetted, and when dried in the open air it becomes as good as before. In the case of a ship, or a fortress, or a city being on fire, this quality may be of the greatest value. It is much safer than gunpowder, owing to its being manufactured in the shape of rope or yarn. It cannot escape from its package, or be spilled by accident. The patent gun cotton is entirely free from the danger of spontaneous combustion, and secures that degree of safety and certainty which, at the time of the original invention, the gun cotton of Schönbein did not possess.

Messrs. THOMAS PRENTICE and Co. are now in a position to contract with the owners of mines, engineers, contractors, and governments for gun cotton prepared in the various forms required for their use. Mining charges will be supplied in the rope form, according to the diameters of bore required, and gun cotton match-line, as well as instructions for using it in mines, will be supplied with it.

The great advantage of gun cotton make its use in practice very much cheaper than its comparative price would appear to show; in blasting rock, for example, the rapidity and quantity of the work done, with a given expense of wages, &c., is largely in favour of gun cotton.

Messrs. THOMAS PRENTICE and Co. are also prepared to manufacture the gun cotton, and deliver it in the form of gun cartridges, adapted to every description of ammunition; all they require for this purpose being a drawing of the gun, gunpowder cartridges, and ammunition, with the specification of weights, sizes, and initial velocities.

Artillerists who prefer to manufacture their own cartridges may make special arrangements with the patentee through Messrs. PRENTICE and Co.

Stowmarket, March 10, 1864.

CHARLES DAVEY AND CO.,

SAFETY FUSE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE.

TO IRON AND COAL MASTERS, MINING AND QUARRY COMPANIES, &c.
IMPROVED BLACK VARNISH,
FOR PREVENTING IRON FROM RUST, AND WOOD FROM DECAY.

A BRILLIANT JET BLACK, SUPERIOR to PAINT in APPEARANCE, dries in less time, contains preservative qualities of the best description, and is economical in its use; one gallon, at 1s., is equal to 14 lbs. of paint, which costs 4s. For COLLIERY HEAD GEARING, RAILWAY WAGONS, BOILERS, CASTINGS, CANAL BOATS, &c., it is especially adapted. In casks containing 10, 15, and 20 cwts. each. In quantities of 1 ton and upwards, price £11 per ton.

TURPENTINE SUBSTITUTE.

GLOVER and Co. have now on hand a really splendid painting sample of spirits of turpentine substitute, a pure crystal, not more volatile than the genuine American turpentine, and quite inoffensive to smell. Price, 2s. per gallon, in 30-gallon casks.

PETROLEUM.

This oil gives a pure, white, soft, and brilliant light, easily regulated, and portable. For works or public buildings, where gas is not desirable, the brilliancy and economy of the article are unequalled.

WASTE NO OIL.

STRONG IRON OIL CISTERNS.

Not liable to leak, and which economise space in the stores. From 600 gallons, 48 diameter by 84 in height, price £10 10s., down to 10 gallons, 15 diameter by 21 in height, price 15s., WITH EVERY VARIETY OF SIZE AND PRICE BETWEEN.

STRONG IRON BUCKETS:—

2½ galls. .. 4s. 6d. | 3 galls. .... 5s. 0d. | 3½ galls. .. 5s. 6d. | 4 galls. ....6s. 0d.

WAGON GREASE.

GLOVER AND CO., No. 40, MANESTY LANE, LIVERPOOL.

CORNISH CRUCIBLE AND BLACK-LEAD POT MAKER,

JOHN JULEFF, FORE STREET, and PEDN-AN-DREA, REDRUTH.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,

SHREWSBURY, has had upwards of 20 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES to SURVEY and REPORT UPON ANY MINE.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,

SHREWSBURY, has very carefully SELECTED SEVERAL LEAD, COPPER, and GOLD SETTS in the highly mineralised districts of CARDIGANSHIRE and MERIONETH, some of which he is working privately himself, and are turning out very satisfactorily. Mr. WILLIAMS WISHES to MEET with a *bona fide* PARTY who can ASSIST HIM to PROVIDE the NECESSARY MACHINERY to RENDER their PRODUCE MARKETABLE.

CAPT. WILLIAMS WANTS an OFFER for FIFTY SHARES

in the HAVAN, and SIXTY SHARES in the CWMSYMLOG UNITED MINES, £4 paid in the former and £5 per share in the latter. Mr. WILLIAMS recommends both mines as a safe investment.—Tyn-y-Wern, Taliesin, Shrewsbury, May 25, 1864.

CARDIGANSHIRE MINING OFFICES.

MESSRS. WILLIAMS, BRAY, AND CO. beg to inform their

mining friends and the public generally that, in consequence of the numerous applications and requests they have received, they now UNDERTAKE the INSPECTING and REPORTING on MINES.

The several members of the firm having had many years' experience in mining in all its branches is the best guarantee of their ability in such matters; and they trust that, by carefully examining the mines they visit, and faithfully reporting thereon, and by constantly watching the progress of both old and new undertakings, they will be able to supply a want that has been greatly felt in the district, and give every information and advice that may be required.

OFFICES, 44, MARINE TERRACE, ABERYSTWITH.

BRITISH AND FOREIGN STOCK, SHARE,

AND MINING OFFICES, No. 2, WINCHESTER BUILDINGS, GREAT WINCHESTER STREET, LONDON, E.C.

Messrs. FULLER AND CO. continue to BUY and SELL EVERY DESCRIPTION of SHARES in BANKS, CANALS, MINES, RAILWAYS, and GOVERNMENT STOCK, either for money or account. Stock Exchange business effected upon the usual commission.

Telegraphic messages promptly attended to, and every information supplied, either personally or by letter. Office hours, from Ten to Four o'clock.

Bankers: The Metropolitan and Provincial Cornhill.

MR. GEORGE HENWOOD, MINING ENGINEER,

LOCHHEAD HOUSE, LOCHWINNOCH, SCOTLAND, OFFERS his SERVICES and ADVICE on mines situated in any part of England, Scotland, Wales, Ireland, Isle of Man, &c. Mr. Henwood's extensive experience in his peculiar department of mining science is well known, and will be exerted to the utmost for the benefit of his clients.

NICHOLLS, WILLIAMS, AND CO., ENGINEERS,

BEDFORD IRONWORKS, TAVISTOCK.

MANUFACTURERS of STEAM ENGINES of EVERY DESCRIPTION, made on the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the manufacture of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS of EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. RAILWAY WORK of EVERY DESCRIPTION.

ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION. NICHOLLS, WILLIAMS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.

Messrs. NICHOLLS, WILLIAMS, and Co. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

MESSRS. W. DERRY AND CO., MINING MATERIAL

MERCHANTS, ST. AUSTELL, respectfully inform the mining public that they have constantly ON SALE EVERY DESCRIPTION of MINING PLANT, in PITWORK, DRESSING APPLIANCES, &c., and STEAM ENGINES, as follows:—

ONE 50 in. cylinder PUMPING.		ONE 26 in. ditto	ROTARY.
ONE 45 in. ditto	ditto	TWO 25 in. ditto	ditto
ONE 40 in. ditto	ditto	ONE 20 in. ditto	PUMPING.
ONE 30 in. ditto	ditto		

ONE 10 horse power PORTABLE HIGH PRESSURE ENGINE.

Applications to be addressed as above, or to the engineer of the company, Mr. W. H. GRAY, St. Austell.

FRANCIS HOLCROFT, CONSULTING AND MECHANICAL

ENGINEER AND VALUER, UNDERTAKES DESIGNS FOR, and the SUPERINTENDENCE of the EXECUTION of, ALL KINDS of ENGINES and MACHINERY for COLLIERIES, BLAST FURNACES, FORGES, MILLS, and OTHER PURPOSES GENERALLY, and will also undertake the supervision of work in this country for abroad if required.—Wellington-road, Bilston, Staffordshire.

RAILWAY CARRIAGE COMPANY (LIMITED),

ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment over a period of years.

RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

is PREPARED to SUPPLY RAILWAY WAGONS of EVERY DESCRIPTION, capable of carrying 6, 8, or 10 tons, at annual rentals, or for purchase on deferred payments, on advantageous terms. EDMUND FOWLER, Sec.
OFFICES,—3, NEWHALL STREET, BIRMINGHAM.

NICKEL AND COBALT REFINING, AND GERMAN SILVER

WORKS, 16, OOZELL STREET NORTH, BIRMINGHAM.

STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL.	OXIDE OF COBALT. [WIRE, &c.
REFINED METALLIC BISMUTH.	GERMAN SILVER—IN INGOTS, SHEET

NICKEL AND COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND

CHEMICAL WORKS,
NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.
JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER.
Reference.—Professor Miller, King's College, London.

COAL CUTTING MACHINERY.—

The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason

to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

EDWARDS'S PATENT MINERAL ORE AND COAL

WASHING MACHINE.—This is by far the MOST ECONOMICAL, as well as the MOST PERFECT MACHINE MADE. Each machine is capable of washing 25 to 50 tons per diem, according to quality.—Full particulars, testimonials, &c., may be obtained from E. EDWARDS, Esq., C.E., 1, York-buildings, Adelphi, where a working model may be seen.

FRANCIS'S PATENT COAL WASHING MACHINE.—

This very EFFICIENT MACHINE is the SIMPLEST and CHEAPEST ever OFFERED to the PUBLIC.—For particulars, apply to Mr. ISAAC FRANCIS, Nant, near Wrexham.

DANIEL COLLINGE AND SON'S PATENT

SPONGE CLOTHS.

WE HAVE APPOINTED MR. ELLIS LEVER, of this city, SOLE AGENT for the SALE of OUR PATENT SPONGE CLOTHS in the MINING DISTRICTS of GREAT BRITAIN. DANIEL COLLINGE AND SON.

Manchester, March 5, 1864.

I shall be glad to SUPPLY SAMPLES and PRICES of DANIEL COLLINGE AND SON'S PATENT SPONGE CLOTHS, which are a VALUABLE SUBSTITUTE for COTTON WASTE in the CLEANING of ENGINES and MACHINERY.

23, Marsden-square, Manchester. ELLIS LEVER.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO.,

PENHALLICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE upon warrant that it will prove equal to, if not better than any to be procured elsewhere.

IMPORTANT TO MINING.

MESSRS. SMYTH AND WASLEY'S PATENT

PREPARATOR, FOR SPALLING AND SEPARATING THE ORE FROM THE STONE.

Agent:—Mr. RAWLE, Patent and Mining Agent, 39, Budge-street, Bristol, where model may be seen, and particulars obtained.

Adopted by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East and West Indies.

EASTON'S PATENT BOILER FLUID,

FOR REMOVING AND PREVENTING INCRUSTATION IN STEAM BOILERS, LAND AND MARINE.
P. S. EASTON AND G. SPRINGFIELD,
Patentees and Sole Manufacturers,
37, 38, and 39, WAPPING WALL, LONDON, E.,
Or of their Agents in the principal towns of Great Britain and the Colonies.

NEW COMBINED TURBINE, WINDING, AND

PUMPING MACHINERY,
MANUFACTURED by GEORGE LOW,
MILLGATE IRONWORKS, NEWARK-UPON-TRENT,

Who respectfully begs to bring the above to the notice of the mining public, as an exceedingly cheap and easy method of applying water-power for the above purposes.

The TURBINE, WINDING, and PUMPING MACHINERY are all fixed complete to one strong cast-iron bed plate, which can be placed in any situation without pit or excavation, and any height not exceeding 33 ft. from bottom of fail, the supply and suction pipe being all that is required to be connected to it, and can be brought in any direction. This combined machine can be easily removed when necessary.

G. Low begs also to state that the TURBINE is the most efficient and the cheapest method of applying water-power for mining purposes.

MANUFACTURER of WINDING, PUMPING, CRUSHING, STAMPING MACHINERY, WINDING ENGINES, WATER WHEELS.

IMPROVED TURBINE WATER WHEELS CONSTRUCTED either to WORK VERTICALLY or HORIZONTALLY, and upon the MOST SCIENTIFIC and EFFECTIVE PRINCIPLE.

G. Low begs to recommend a special class of turbine adapted for extreme high falls (200 to 500 ft.), and consuming small quantity of water. This turbine will work with equal advantage without running at an excessive velocity. Also,

MANUFACTURER of IMPROVED BORING MACHINES for DRIVING ADITS.

CREASE'S PATENT EXCAVATING MACHINERY,

for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE, Tavistock, Devon.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmistakable advantage—that when the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—*Mining Journal.*

ASSAYS AND ANALYSES OF EVERY DESCRIPTION

Conducted by JOHN MITCHELL, F.C.S., M.G.A. (Established 20 years).
Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.
All communications and samples to be addressed (free) to MR. MITCHELL, care of Mr. Clay, 29, Great St. Helen's, London, E.C.

Tavistock Ironworks, Devon.—(Established 1804.)

GILL AND CO., ENGINEERS AND IRONFOUNDERS,

MANUFACTURERS of STEAM ENGINES and BOILERS. CHAINS of ALL DIMENSIONS. STEELED SHOVELS to any pattern. EVERY DESCRIPTION of CAST and HAMMERED IRON for MINING, MANUFACTURING, and AGRICULTURAL PURPOSES.

HAMMER MILLS. EDGE TOOL MANUFACTORY.
FOREIGN MINES SUPPLIED ON LIBERAL TERMS.
VARIOUS DESCRIPTIONS of SECOND-HAND MACHINERY CONSTANTLY ON HAND.

N.B.—AGENTS for TANGEY'S PATENT HYDRAULIC LIFTING JACK, and WESTON'S PATENT DIFFERENTIAL PULLEY BLOCKS.

CLAYTON, SHUTTLEWORTH, AND CO.,

ENGINEERS,

MANUFACTURERS of PORTABLE and FIXED STEAM ENGINES, MACHINERY for PUMPING, HOISTING, GRINDING, SAWING, &c., ENGINES for STEAM CULTIVATION, SELF MOVING ENGINES for COMMON ROADS and AGRICULTURAL PURPOSES GENERALLY.

STAMP END WORKS, LINCOLN; and
78, LOMBARD STREET, LONDON.
ALSO AT
LOWENGASSE No. 44, LANDSTRASTE, VIENNA, and GEGENUBER DEM BAHNHOF, PESTH.

Descriptive, illustrated, and priced catalogues free per post.
SPECIAL DRAWINGS WHEN REQUIRED.
THE BEST STEAM THRASHING MACHINERY MADE.

ESTABLISHED 1800.

EDGE AND SON,

MANUFACTURERS OF
IMPROVED FLAT and ROUND CHAINS and WIRE ROPES,
For MINING PURPOSES.
BOUKS, KIBBLES, BOILERS, IRON BLOCKS, and BLOCK CHAINS.
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3.—It occupies a very small space.
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5.—It raises with the water, and without the slightest injury to the apparatus, sand, mud, wood, stone, and every object of a smaller diameter than its tube.
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THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Busines.	Dividends Per Share.	Last paid.
1200	Alderley Edge (cop.), Cheshire [L.]	10 0 0	—	..	..	..
4000	Bedford United (copper), Tavistock†	2 6 8	—	..	2½ 2½	—
1248	Boscaswell (tin, copper), St. Just	6 15 0	—	..	..	..
200	Botallack (tin, copper), St. Just	91 5 0	—	..	..	..
5000	Bronfloyd (lead), Cardigan [L. £3]	2 7 6	—	..	..	..
916	Cargoll (silver-lead), Newlyn	15 5 7	32	..	22 30	..
2900	Clifford Amalgamated (cop.), Gwen.	30 0 0	34½	..	33½ 34½	..
12000	Copper Miners of England	25 0 0	—	..	..	..
40000	Ditto ditto (stock)	100 0 0	—	..	..	..
867	Cwm Erfin (lead) Cardiganshire [L.]	7 10 0	—	..	..	..
128	Cwmystwith (lead), Cardiganshire*	60 0 0	—	..	..	..
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	—	..	..	..
358	Dolcoath (copper, tin), Camborne*	128 17 6	—	..	..	..
12800	Drake Walls (tin, copper), Calstock	2 1 0	—	..	..	..
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	66	..	64 66	..
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	30	..	28 29	..
300	East Darren (lead), Cardiganshire*	32 0 0	—	..	..	..
128	East Pool (tin, copper), Pool, Illogan	24 5 0	—	..	..	..
1906	East Wheal Lovell (tin), Wendron	2 13 6	21	..	19 20	..
2800	Foxdale (lead) Isle of Man [L.]	25 0 0	—	..	..	..
5000	Frank Mills (lead), Christow	3 18 6	—	..	..	..
12800	Great Laxey (lead), Isle of Man [L.]	4 0 0	15	..	13 14	..
1798	Great Wheal Fortune (tin), Breage	18 6 0	15	..	14 15	..
5908	Great Wh. Vor (tin, cp.), Helston [S.E.]	40 0 0	34	..	33½ 34½	..
119	Great Work (tin), Germoe	100 0 0	—	..	..	..
1024	Herodsfoot (id.), near Liskeard [S.E.]	8 10 0	—	..	..	..
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	—	..	..	..
9000	Marke Valley (copper), Caradon	4 10 6	5	..	4¼ 4½	..
1800	Minera Mining Co. [L.], (id.), Wrexham	25 0 0	—	..	..	..
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	—	..	..	..
40000	Mwyndy (iron ore) [L. £4] [S.E.]	2 10 0	—	..	..	..
250	Nanty Mines (lead), Montgomery	20 0 0	—	..	..	..
6000	New Birch Tor and Vitifer Cons. (tin).	1 6 6	3¼	..	..	..
5936	North Treskerby (copper), St. Agnes	1 9 0	—	..	..	..
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	—	..	..	..
200	Parya Mines (copper), Anglesey [L.]	50 0 0	—	..	..	..
1772	Polberro (tin), St. Agnes	15 0 0	—	..	..	..
512	Polbreen (tin), St. Agnes	8 0 0	—	..	..	..
1123	Providence (tin), Uny Lelant† [S.E.]	10 6 7	40	..	38 40	..
6000	Rosewall Hill and Ransom United	2 16 0	—	..	..	..
512	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	470	..	..	..
512	South Tolgus (cop.), Redruth, Cornwall*	8 0 0	—	..	..	..
496	S. Wh. Frances (cop.), Illogan* [S.E.]	18 18 9	44	..	40 45	..
4000	St. Day United (tin), Redruth	14 0 0	—	..	7¼ 8	..
940	St. Ives Consols (tin), St. Ives†	8 0 0	27½	..	..	..
8000	Tincroft (cop. tin), Pool, Illogan [S.E.]	9 0 0	19	..	18 19	..
4200	Vigra and Clogau (copper) [L. £5]	4 0 0	—	..	..	..
6000	West Basset (copper), Illogan [S.E.]	1 10 0	—	..	..	..
3000	W. Chiverton, (id.), Perranzabuloe [S.E.]	—	..	75	..	70 75
256	West Damsel (copper), Gwennap	38 10 0	—	..	..	..
400	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	185	..	180 190	..
512	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	95	..	90 95	..
1000	Wheal Basset and Grylls (tin)	7 0 0	—	..	..	..
1024	Wheal Grylls (tin), Perranuthnoe	2 4 0	26	..	..	..
512	Wheal Jane (silver-lead), Kea	3 10 0	—	..	..	..
4295	Wheal Kitty (tin), St. Agnes	5 4 6	7	..	6¼ 6½	..
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	2 0 6	—	..	..	..
896	Wh. Margaret (tin), Uny Lel. [S.E.]	9 17 6	15	..	14 15	..
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0	15	..	15 16	..
80	Wheal Owles (tin), St. Just, Cornwall	70 0 0	—	..	..	..
896	Wheal Seton (tin, copper), Camborne	58 10 0	227½	..	222½ 227½	..
1040	Wh. Trelawny (sil.-id.), Liskeard [S.E.]	5 17 0	21	..	20 21	..
2044	Wheal Tremayne (tin), Gwinear	6 11 3	—	..	..	..
7000	Wicklow (copper) [L.], Wicklow	2 10 0	—	..	..	..

[* Dividends paid every two months. † Dividends paid every three months.]

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

240	Boscean (tin), St. Just	20 10 0	—	..	..	..
1900	Carn Brea (copper, tin), Illogan	15 0 0	—	..	..	..
3000	Chiverton (lead), Perranzabuloe [S.E.]	5 0 0	11½	..	11 12	..
256	Condurrow (cop., tin), Camborne	45 0 0	—	..	..	..
2450	Cook's Kitchen (copper), Illogan	17 15 9	20	..	..	..
1024	Copper Hill (copper), Redruth	12 0 0	—	..	..	..
1055	Craddock Moor (copper), St. Cleer	8 0 0	—	..	..	..
280	Derwent Mines (sil.-lead), Durham	300 0 0	—	..	..	..
4076	Devon and Cornwall (cop.), Tavistock	6 6 3	—	..	..	..
8000	Dyfngwm (lead), Wales	12 6 6	—	..	..	..
940	Fowey Consols (copper), Tywardreath	4 0 0	—	..	..	..
6000	Great South Tolgus, Redruth	0 14 6	—	..	..	..
10240	Gunnis Lake (Clitters' Adit)	0 2 0	—	..	..	..
160	Levant (copper, tin), St. Just	2 10 0	—	..	..	..
640	Mount Pleasant (lead), Mold	4 0 0	—	..	..	..
5000	Orsedd (lead), Flintshire	0 0 8	—	..	..	..
5000	South Exmouth (lead), Christow	1 10 0	—	..	..	..
280	Spearne Moor (tin, copper), St. Just	31 17 9	—	..	..	..
572	Trelyon Consols (tin), St. Ives	12 10 0	—	..	..	..
1000	Trumpet Consols (tin), near Helston	11 10 0	—	..	..	..
12000	Twelve Apostles Amal. (id.), Wrexham	1 0 0	—	..	..	..
1024	Wendron Consols (tin), Wendron	18 3 10	—	..	2¼ 3	..
60	West Burton Gill (lead), Yorkshire	50 0 0	—	..	..	..
1024	West Caradon (cop.), Liskeard [S.E.]	5 0 0	—	..	..	..
1024	Wheal Friendship (copper), Devon	—	—	..	..	..
6400	West Fowey Consols (tin and copper)	7 10 0	—	..	..	..
100	Wheal Mary (tin), Leiant	36 2 6	—	..	..	..

FOREIGN DIVIDEND MINES.

20000	Australian (cop.), S. Australia [S.E.]	7 7 6	—	..	..	..
2464	Burra Burra (cop.), South Australia	5 0 0	—	..	..	..
6000	Central American (silver) [L.]	5 0 0	—	..	..	..
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	36	..	34 36	..
100000	Don Pedro No. Del Rey [L. £1] [S.E.]	0 10 0	¾	..	..	..
70000	English and Australian [S.E.]	5 0 0	—	..	..	..
15000	East Indian Coal, Calcutta [L.]	10 0 0	—	..	..	..
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	4¼	..	3¾ 4¼	..
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	22	..	20 22	..
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	—	..	1 1¼	..
15000	Linares (id.), Pozo Ancho, Spain [S.E.]	3 0 0	6¼	..	..	..
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	—	..	..	..
97500	Port Phillip (gold), Clunes [S.E.]	1 0 0	1⅝	..	..	..
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	47	..	46 48	..
43174	Unit. Mexican (sil.), Mexico [S.E.] Av.	28 5 0	6¼	..	5¾ 6¼	..
10000	Vancouver (coal) [L. £10]	5 0 0	7	..	..	..
20000	West Canada Mining Company [L.]	1 0 0	—	..	..	..
45000	Yudanamutana (cop.), S. A. [L.] [S.E.]	3 0 0	3⅛	..	2⅞ 3⅛	..

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quænangen Unt. (cop.) [L. £5]	4 10 0	—	..	..	..
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	—	..	..	..
10000	Gt. Barrier Land, Min., &c., N. Ze. [L. £5]	4 10 0	—	..	..	..
10000	Lusitanian (of Portugal) [S.E.]	3 0 0	—	..	..	..
103815	Mariquita and New Granada [S.E.]	1 0 0	¾	..	⅛ ¾	..

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
100000	Anglo-Brazilian (gold) [L. £1] [S.E.]	0 5 0	⅝	..	.. Dec. 1863
35000	Alamillos (lead), Spain [L. £3]	0 12 6	1⅛	.. ⅞ 1⅛	.. Mar. 1864
20000	Beariz Tin Streaming Company [L. £1]	0 17 6	—	..	.. Oct. 1863
15000	Cape Copper Mining Company [L. £10] [S.E.]	7 0 0	12½	.. 11½ 12½	.. Feb. 1864
25000	Capula (silver), Mexico [L. £2] [S.E.]	1 0 0	—	..	.. Feb. 1864
17000	Central Italian (copper) [7000 £3 paid]	0 6 0	—	..	.. Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	1 2 6	—	..	.. July, 1862
10000	Copiapo Smelting [L.], Chili	10 0 0	—	..	.. Fully paid.
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	..	.. Fully paid.
50000	East del Rey (gold), Brazil [L. £3] [S.E.]	1 5 0	—	..	.. Oct. 1863
30000	East Kongsberg Native Silver Mining Co. of Norway [L. £5]	1 12 0	—	..	.. Dec. 1863
15000	El Chico Mining and Reduction (silver) [L. £5]]	3 0 0	—	..	.. Mar. 1864
20000	Elbe Colliery Company, Bohemia [L.]	1 0 0	—	..	.. Fully paid.
30000	Ellerslie and Bardowie (copper), Jamaica	0 18 0	—	..	.. July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0	—	..	.. Fully paid.
40000	Fortune (copper), West Australia [L.]	2 0 0	—	..	.. Fully paid.
50000	Frontino and Bolivia (gold), New Granada [L. £2]	0 10 0	—	..	.. Mar. 1864
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 10 0	—	..	.. June, 1862
24000	Hindostan (copper), Bengal [L. £5]	3 0 0	—	..	.. Feb. 1863
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—	..	.. Fully paid.
10000	Karbitz Colliery Company [L.]	1 0 0	—	..	.. Fully paid.
30000	Lagunaso (sulphur, copper), Portugal [L.]	1 0 0	—	..	.. Fully paid.
100000	Montes Aureos (gold), Brazil [L.] [S.E.]	2 0 0	2⅞	.. 2½ 2⅞	.. Fully paid.
2000	New Burra Burra (copper) (Australia)	5 0 0	—	..	.. Aug. 1862
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	—	..	.. Nov. 1858
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	0 17 6	—	..	..
50000	Nova Scotia (land and gold) [L. £2]	1 0 0	—	..	.. Nov. 1862
18000	Pachuca Silver Mining Company, Mexico [L. £1]	1 0 0	—	..	.. June, 1863
50000	Panulcillo (copper) [L. £4]	1 0 0	—	..	.. Feb. 1864
6000	Peel River Land and Mineral [Limited]	100 0 0	—	..	.. Stock.
23000	Quebrada (copper), Venezuela [L. £10]	4 10 0	—	..	.. Jan. 1864
10000	San Roque (lead), Spain	5 0 0	—	..	.. Fully paid.
60000	Santa Barbara (gold), Brazil [L. £1]	0 12 6	—	..	.. Jan. 1864
120000	Scottish Australian Mining Company [L. £1]	0 17 6	—	..	.. Feb. 1864
18000	South Europe Mining Company. Spain [L. £5]	3 0 0	—	..	.. May, 1860
12000	Tepiltz Colliery Co., Bohemia [L. £5]	3 0 0	—	..	.. June, 1863
5000	Valgodemard Mining Company [L. £20]	6 0 0	—	..	.. Mar. 1864
50000	Vallanzasca (gold), Italy [L. £1] [S.E.]	0 7 6	—	..	.. Dec. 1863
45000	Victor Emanuel (copper), Italy [L.]	1 0 0	—	..	.. Fully paid.
1000	Western Africa Malachite (copper) [L.]	110 0 0	—	..	.. Oct. 1862
12000	Wheal Ellen (copper), South Australia [L.]	5 0 0	—	..	.. Fully paid.
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	1	..	.. Fully paid

PROGRESSIVE MINES.

Shares	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
700	Aberdovey (sil.-lead), Merio	4 0 0	—	..	.. Sept. 1863
6000	Bagtor (tin) [L.]	2 0 0	—	..	.. Fully paid.
1000	Baldwin, (id.), [L. £3] [400 £5 pd., 600 5s. pd.]	..	..	..	.. Mar. 1863
10000	Bampfylde (copper), Devon	1 0 0	—	..	.. Aug. 1860
4000	Bedford Cons. (cop.), Tavistk.	2 8 0	—	..	.. Mar. 1864
3200	Bedol Aur (lead), Holywell	0 10 0	—	..	.. Oct. 1863
2000	Berehaven (copper), Ireland	1 0 0	—	..	..
400	Billins [L. £30] [200 £25 pd., 200 £30 pd.]	..	..	..	.. Oct. 1863
2280	Boscundle (tin, cp.), St. Austell	7 10 0	—	..	.. Sept. 1862
5000	Bottle Hill (tin) Plympton	1 8 6	⅛	..	.. May, 1864
30000	Bromlow (id.), Minsterley, Salop	1 0 0	—	..	.. Fully paid.
200	Brynford Hall (lead), Flint	30 0 0	—	..	.. Aug. 1863
500	Bryn Gwiog (lead), Flint	8 0 0	—	..	.. July, 1863
1832	Bryntail (lead), Llanidloes	8 4 6	—	..	.. Mar. 1864
6380	Buller & Basset, (cp.) Redruth	4 6 6	—	..	.. Aug. 1863
12000	Calstock Consols (cop.), Calst.	1 17 6	—	..	..
918	Calvadnack (tin), Wendron	24 3 6	—	..	.. Nov. 1863
1000	Camborne Consols (copper)	18 10 0	—	..	.. Feb. 1864
4600	Camborne Vean & Wh. Francis	9 13 4	—	..	.. Feb. 1864
75000	CambrianConsolid. (gd.) [L. £2]	1 0 0	—	..	.. Aug. 1862
8000	Cape Cornwall (cop.), [L. £2 10s.]	0 15 0	—	..	.. Mar. 1864
12000	Caradon & Phœnix Con. [L. £1]	0 10 0	..	16s.	..
914	Caradon Cons. (cop.), St. Cleer	28 4 6	—	..	.. Dec. 1863
10000	Caradon Vale (copper)	—	—	..	..
6000	Caradon Unit. (cop.), St. Neots	1 0 0	—	..	.. June, 1863
2580	Carmarthen United (lead)	5 0 0	—	..	.. Fully paid.
2000	Carnelloe (tin and cop.), Zennor	1 0 0	—	..	.. Jan. 1864
6000	Carn Camborne (cop.), Cambn.	1 7 0	—	..	1 1¼ .. April, 1864
3000	Carn Vivian (tin, cop., lead)	2 1 6	—	..	.. Nov. 1861
2048	Carnyorth (tin), St. Just	4 5 0	—	..	.. June, 1863
20000	Caryafort [3200 £2½ pd., 16800 £1 pd.]	..	..	..	..
10000	Castleward, Ireland [L.]	1 0 0	—	..	.. Fully paid.
2500	Cefn Cilcen (id.), Flint [L. £5]	2 7 0	—	..	.. Mar. 1864
800	Cefn Cwm Brwyno (lead)	4 0 0	—	..	.. May, 1864
2000	Central Gryllis (tin) [L. £3]	2 10 0	—	..	.. Feb. 1864
2500	Central Minera (lead) [L. £5]	2 10 0	—	..	.. Mar. 1864
6000	Charlotte Untd., Perranuthnoe	4 12 8	—	..	.. Feb. 1864
5000	Chiverton Consols (sil.-lead)	0 5 0	—	..	..
3000	Chiverton Moor (lead)	3 0 0	5¾	..	5 5¼ .. Oct. 1863
2000	Chiverton Valley (lead)	3 0 0	—	..	.. Feb. 1864
1000	Chiverton Wheal Hope (lead)	5 0 0	—	..	.. Feb. 1864
3000	Chiverton Wheal Rose (sil.-id.)	0 16 8	—	..	.. Oct. 1863
4000	Ciara Unit., Ponterwyd [L. £3]	2 2 0	—	..	.. Jan. 1864
1024	Cleer's Hill (tin), St. Stephen's	0 2 0	—	..	..
787	Clijah & Wentworth (tin, cp.)	32 10 0	—	..	.. Mar. 1864
3000	Clowance Wood [L. £5]	1 10 0	—	..	1¼ .. May, 1864
3565	Coed Mawr Pool (lead) [L.]	5 0 0	—	..	.. April, 1863
16000	Coolartra & Bond [L.] [5300 £1 pd., 10700 12s. pd.]	..	..	..	.. Jan. 1864
50000	Connorree (cop., sulph.) [L.]	1 0 0	—	..	.. Fully paid.
6000	Cornish Clay and Tin [L.]	1 0 0	—	..	.. Fully paid.
861	Crane (copper), Camborne	22 10 0	13	..	13 .. Mar. 1864
30000	Crenver and Wh. Abraham [L.]	2 10 0	—	..	..
12000	Crelake (cop.), Tavistock	2 13 0	—	..	.. April, 1864
6000	Crowan Cons. (cop.) [L. £2]	—	—	..	.. Aug. 1863
2000	Crowlwm (lead), Llanidloes	1 11 0	—	..	.. Dec. 1863
6000	Cuddra (cop., tin), St. Austell	4 1 0	—	..	.. Feb. 1864
35000	Dale (lead), North Stafford	1 0 0	—	..	.. Fully paid.
200	Darren (lead), Cardigan	32 0 0	51	..	50 52 .. May, 1864
2000	DeepLevel, Minera (id.) [L. £5]	3 5 0	—	..	.. Feb. 1862
672	Ding Dong (tin), Gulval	44 10 6	—	..	.. Dec. 1863
30000	Dolfrwynog (gold) [L. £1]	0 12 6	—	..	.. Mar. 1864
1000	Durlo (tin), Leiant	8 2 0	—	..	.. Oct. 1862
1000	Eaglebrook (lead) [L. £20]	17 2 0	—	..	.. Feb. 1863
1000	East Basset and Grylls (tin)	1 10 0	—	..	.. Dec. 1863
3000	E. Beam (tin), St. Aus. [L. £2]	1 7 0	—	..	.. Mar. 1863
6000	E. Bottle Hill (tin), Plympton	0 3 6	—	..	.. April, 1864
4096	E. Brookwood (cop.), Ashburton	1 7 0	—	..	.. Jan. 1863
50000	East Cambrian (gold) [L. £1]	0 15 0	—	..	.. Feb. 1864
6000	East Carn Brea (cop.) Redruth	3 15 0	7	..	8½ 9 .. Feb. 1863
2000	East Chiverton (lead)	2 3 0	—	..	.. Mar. 1864
50000	E. Clogau (gold), Merio. [L. £1]	0 6 0	—	..	.. Mar. 1864
4000	East Devon Gt. Consols (cop.)	1 14 0	—	..	.. May, 1864
2048	E. Falmouth (s.-id.), Kenwyn	5 0 6	—	..	.. April, 1864
6000	E. Grenville (cop.), Camborne	2 5 0	4⅝	..	5⅜ 5⅞ .. May, 1864
6000	E. Gt. Work (tin), Breage [L. £5]	2 10 0	—	..	.. May, 1864
4000	E. Gunnis Lake & S. Bedf. (cop.)	7 10 6	—	..	⅛ ¾ .. Jan. 1864
60	E. Laxey (lead), Isle of Man	100 0 0	—	..	.. Fully paid.
6145	East Jane (sil.-id.), Cardinham	2 7 0	—	..	.. Mar. 1864
1024	E. Margaret (tin), Uny Lelant	19 10 0	—	..	.. May, 1864
8000	E. Polberro (tin) [L. £1] [4000 £1 pd. 4000 2s. 6d. pd.]	..	..	..	.. Nov. 1863
3986	E. Providence (tin), Uny Lel.	4 4 8	—	..	.. Dec. 1863
5000	E. Rosewarne (cp., tin), Gwin.	2 15 0	3½	..	3 3¼ .. Sept. 1862
8610	East Seton (cop.), Camborne	0 10 0	—	..	..
256	East Tolgus (copper), Redruth	86 0 0	—	..	.. Mar. 1864
1024	E. Treskerby (cop.), Redruth	8 16 0	—	..	.. Mar. 1864
1190	E. Wheal Agar (cop.), St. Cleer	11 17 0	—	..	.. Sept. 1863
1800	E. Wheal Ellen (cop.) St. Agnes	0 7 6	—	..	.. April, 1864
2000	E. Wh. Fortune (tin) Sithney	1 0 0	—	..	.. April, 1863
2048	East Wheal Grylls (tin, cop.)	1 10 0	14	..	.. June, 1863
6000	East Wheal Metal (tin and cop.)	—	—	..	..
4000	E. Wh. Russell, Tavis. [S.E.]	8 15 6	4	..	3⅞ 4⅛ .. Mar. 1864
6000	East Wheal Vor (tin and cop.)	5 0 0	5¾	..	..
2000	Erwfelin (lead), [L. £2]	1 0 0	—	..	..
6144	Esther Und. (tin), Cardingham	0 1 4	—	..	.. Mar. 1864
6000	Fortescue Cons. (sil.), Endellion	0 12 6	—	..	..
6000	Furze Hill Wood Cons., Buckl.	1 5 6	—	..	.. April, 1864
1026	Garden (tin), Morvah	4 17 9	—	..	.. May, 1863
4096	Garlidna Untd. (tin), Wendron	4 1 6	—	..	.. Mar. 1864
1000	Garreg (lead), Flint	5 14 6	—	..	.. Dec. 1863
4000	Gawton (copper), Tavistock	2 8 0	1¼	..	1 .. Feb. 1864
6000	Gen. Min. Co. for Irel. (cop.)	4 0 0	—	..	..
30000	GlasgowCaradonCon. (cp.) [L.]	1 0 0	4	..	.. Fully paid.
5700	Goginan (sil.-id.) [1900 £12½, 3800 30s.]	—	—	..	.. April, 1864
2000	Goich Hill (lead), Flintshire	1 0 0	—	..	..
6144	Gonamena (copper), St. Cleer	4 7 0	4	..	3½ 4 .. Mar. 1864
2000	Goonzion (copper), St. Neot	1 7 6	—	..	.. Mar. 1864
486	Grambr. & St. Aub. (cp.) [S.E.]	61 0 0	12	..	11 12 .. May, 1864
5000	Great Brigan (cop.), Redruth	6 7 6	—	..	.. May, 1864
4096	Great Caradon (cop.), St. Ive	2 10 0	2	..	2 .. Mar. 1864
10000	Gt. Dev. & Bed. [L.] [2800 50s. fully pd.]	..	..	..	..
3000	Gt. East Lovell (tin), Helston	1 0 0	4¼	..	3¾ 4 ..
5000	Great North Downs (copper)	3 15 0	5½	..	5¾ 6 .. May, 1864
6000	Gt. Retallack (sil.-id., blende)	2 6 6	—	..	.. April, 1864
6000	Great S. Chiverton (sil.-lead)	0 10 0	2⅝	..	2½ 2¾ .. April, 1864
52000	Great Tregune Consols (cop.)	0 5 0	—	..	..
3000	Great West Chiverton	0 10 0	—	..	..
3730	Great Wheal Baddern (tin)	6 16 0	—	..	.. May, 1863
2048	Grylls Consols (tin)	1 5 0	—	..	..
4000	Grylls Wheal Florence (tin)	—	—	..	.. Jan. 1864
6000	Gt. Wh. Busy (cop., tin), Ken.	13 14 6	4	..	4 4½ .. April, 1863
3072	Gt. Wh. Gryils (tin, copper)	1 0 0	—	..	.. No call.
4910	Gurlyn (cop., tin), St. Erth	2 10 5	—	..	.. Feb. 1864
6068	Gwydyr Park Con., Llanrwst	1 7 3	—	..	.. Feb. 1864
6000	Halienbeagle (copper)	—	—	4	..
6400	Harwood (id.), Durham [L. £1]	0 5 6	—	..	4¼ 4½ .. Nov. 1861
5000	Havan (id.)., Cardigan [L. £5]	4 0 0	—	..	.. Feb. 1864
5000	Hazael Grove (sil.-id.) [L. £1]	0 10 0	—	..	..
7219	Hawkmoor (tin, cop.) Calstock	3 6 0	—	..	.. Feb. 1864
6000	Hingston Down (cop.)., [S.E.]	5 10 6	3½	..	3¼ 3½ .. Dec. 1863
6000	Illogan (tin and copper)	0 12 6	—	..	.. Nov. 1863
5000	Kelly Bray (id.), Callington	4 19 6	—	..	⅛ .. Feb. 1864
6000	Keswick (lead), Portinscale	5 6 6	—	..	.. Mar. 1862
96	Kilmorey (lead)	25 5 0	—	..	.. Feb. 1864
6000	Lady Bertha (cop.) [S.E.]	2 18 6	—	..	⅜ ⅛ .. April, 1864
3000	Lanivet (tin), [L. £2]	1 10 0	—	..	.. April, 1864
1019	Leeds & St. Aubyn (tin, cop.)	17 6 4	—	..	.. Feb. 1862
963	Leiant Cons. (tin), Uny Lelant	35 0 0	—	..	.. Mar. 1863
240	Llangan (id.), Glamor. [L. £25]	20 0 0	—	..	.. Oct. 1863
4000	Llantwit Vardre (coal), [L. £5]	4 10 0	—	..	.. May, 1864
2000	Long Rake (lead), Flint	4 10 0	—	..	.. Oct. 1863
2000	Lower Park (id.), Denbigh [L.]	3 11 0	—	..	.. Jan. 1864
6000	Maudlin (copper), Lostwithiel	4 2 0	—	..	.. April, 1864
4480	Merllyn (lead), Flint	4 0 6	—	..	.. Dec. 1863
3000	Minera Western Boundary [L. £1]	0 2 6	—	..	.. Sept. 1863
3000	Mineral Bottom (lead)	3 0 0	7	..	6 6½ ..
5000	Molland (cop.), S. Moulton	2 9 6	—	..	.. Nov. 1862
1024	Nangiles (tin, copper), Kea	18 0 0	31	..	30 32 .. May, 1864
5000	Nanteos and Penrhiw [L.]	4 0 0	—	..	.. Fully paid.
4000	Nanteos (lead) [L. £1]	0 5 0	—	..	.. Jan. 1864
512	Nant Minera (lead), [L. £20]	5 14 0	—	..	.. May, 1864
6400	Nant-y-Iago (id.), Merioneth	3 17 6	—	..	.. May, 1863
6000	New East Birch Tor (tin)	0 2 6	—	..	..
10000	New Concord (sil.-id.) [L. £3]	1 0 0	—	..	..
12000	New Cornish [8000 £1 paid, 4000 7s. 6d. paid]	..	..	..	.. Mar. 1864
6400	N. Crow Hill (id.), St. Stephen	2 11 6	..	13¾	.. Feb. 1864
6514	New E. Russell (cop.), Tavistk.	0 6 0	—	..	.. Oct. 1863
6400	Nether Hearth (lead), Dufton	0 18 6	—	..	.. Oct. 1863
400	New Hendra (tin, cop.), Breage	2 3 6	—	..	.. May, 1864
6400	New Pembroke (tin and cop.)	9 9 0	—	..	.. May, 1864
1024	New Rosewarne (cop.), Gwinear	2 0 0	12	..	11 11¼ .. Dec. 1863
6000	New S. Caradon (cop.), St. Cleer	0 16 6	—	..	.. Dec. 1863
5969	New Treleigh (cop.), Redruth	3 3 0	—	..	.. Mar. 1864
969	New Trevenen (tin), Wendron	6 7 0	—	..	.. Feb. 1864
470	Newtownards Min. Co., Down	50 0 0	—	..	..
1024	New Wendron (tin), Wendron	7